

The Auditor-General
Audit Report No.22 2005-06
Performance Audit

Cross Portfolio Audit of Green Office Procurement

Australian National Audit Office

© Commonwealth
of Australia 2005

ISSN 1036-7632

ISBN 0 642 80881 3

COPYRIGHT INFORMATION

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from the Commonwealth.

Requests and inquiries concerning reproduction and rights should be addressed to the Commonwealth Copyright Administration, Attorney-General's Department, Robert Garran Offices, National Circuit Canberra ACT 2600

<http://www.ag.gov.au/cca>



Canberra ACT
22 December 2005

Dear Mr President
Dear Mr Speaker

The Australian National Audit Office has undertaken a performance audit across agencies in accordance with the authority contained in the *Auditor-General Act 1997*. Pursuant to Senate Standing Order 166 relating to the presentation of documents when the Senate is not sitting, I present the report of this audit and the accompanying brochure. The report is titled *Cross Portfolio Audit of Green Office Procurement*.

Following its presentation and receipt, the report will be placed on the Australian National Audit Office's Homepage—<http://www.anao.gov.au>.

Yours sincerely

Ian McPhee
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of Representatives
Parliament House
Canberra ACT

AUDITING FOR AUSTRALIA

The Auditor-General is head of the Australian National Audit Office. The ANAO assists the Auditor-General to carry out his duties under the *Auditor-General Act 1997* to undertake performance audits and financial statement audits of Commonwealth public sector bodies and to provide independent reports and advice for the Parliament, the Government and the community. The aim is to improve Commonwealth public sector administration and accountability.

For further information contact:
The Publications Manager
Australian National Audit Office
GPO Box 707
Canberra ACT 2601

Telephone: (02) 6203 7505
Fax: (02) 6203 7519
Email: webmaster@anao.gov.au

ANAO audit reports and information about the ANAO are available at our internet address:

<http://www.anao.gov.au>

Audit Team

Peter McVay
Cameron Mathie
David Crossley

Contents

Abbreviations	7
Glossary	10
Executive Summary and Recommendations	13
Executive Summary.....	15
Background	15
Key findings.....	16
Overall audit conclusion	24
Agencies' response	25
Recommendations.....	26
Audit Findings and Conclusions	37
1. Background	39
What is green office procurement?	39
The procurement policy environment.....	39
International experiences in green office procurement	43
Audit objectives and scope.....	45
Audit methodology and structure	48
Report outline	49
Audit conduct.....	50
2. Agency Policies and Procedures.....	51
Chief Executive Instructions (CEIs) and internal policies.....	51
Guidance to Agencies	52
Agency procurement systems.....	54
Procurement and environmental management systems.....	55
Barriers to Green Procurement	61
Reporting	62
Triple Bottom Line Reporting.....	64

3. Office Stationery, Equipment and Vehicles.....	66
Office Equipment and Consumables.....	66
Office stationery and paper	66
Office Equipment.....	71
Photocopiers and printers	71
Information and communication technology (ICT) and equipment	73
Miscellaneous office equipment.....	75
Motor Vehicles.....	76
4. Water Conservation and Waste Minimisation	87
Water Efficiency	87
Building and refurbishment waste	91
Waste management	96
5. Whole of Government Energy Reporting	101
Introduction.....	101
Performance against energy targets	101
Whole of Government Energy Initiatives and Reporting	107
6. Energy Efficiency Initiatives in Buildings and Facilities	111
Introduction.....	111
Agency Energy Efficiency Initiatives	111
Defence Energy Initiatives.....	113
Compliance with energy efficiency policies.....	116
7. Framework for Sustainability	127
Audit Conclusions.....	127
A strengthened sustainability framework	128
Appendices	131
Appendix 1 : Agency Responses.....	133
Appendix 2 : Surveyed Agencies.....	151
Appendix 3 : Available Pool Vehicles for Leaseplan fleet	154
Index.....	156
Series Titles.....	158
Better Practice Guides.....	160

Abbreviations

AAD	Australian Antarctic Division
ABGR	Australian Building Greenhouse Rating
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AFP	Australian Federal Police
AGIMO	Australian Government Information Management Office
AGO	Australian Greenhouse Office
ANAO	Australian National Audit Office
APS	Australian Public Service
ASIC	Australian Securities and Investments Commission
ATO	Australian Taxation Office
BOMA	Building Owners and Managers Association
CAC	<i>Commonwealth Authorities and Companies Act 1997</i>
CASA	Civil Aviation Safety Authority
CEIs	Chief Executive Instructions
CO ₂	Carbon Dioxide
CPA	Certified Practising Accountants
CPGs	Commonwealth Procurement Guidelines
CRT	Cathode Ray Tube
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEEP	Defence Energy Efficiency Program
Defence	Department of Defence
DEH	Department of the Environment and Heritage
DEST	Department of Education, Science and Training
DIMIA	Department of Immigration and Multicultural and Indigenous Affairs
EDGAR	Environmental Data Gathering and Reporting

EMS	Environmental Management System
EPA	Environmental Protection Authority
ESD	Environmentally Sustainable Development
EU	European Union
FaCS	Department of Family and Community Services
Finance	Department of Finance and Administration
FMA	<i>Financial Management and Accountability Act 1997</i>
FMB	Fleet Monitoring Body
GaPS	Gazette Publishing System
GJ	Giga (1000000000) Joules
GL	Giga (1000000000) Litres
GRI	Global Reporting Initiatives
GSM	Grams per square metre
GVG	Green Vehicle Guide
ICT	Information and Communication technology
IRR	Internal Rate of Return
ISO	International Standards Organisation
IT	Information Technology
KJ	Kilo (1000) Joules
KL	Kilo (1000) Litres
LCD	Liquid Crystal Display
LPG	Liquid Petroleum Gas
MJ	Mega (1000000) Joules
ML	Mega (1000000) Litres
NPC	National Packaging Covenant
NSW	New South Wales
NTA	National Transmission Authority
OECD	Organisation for Economic Cooperation and Development
PCBs	Polychlorinated Biphenyls
RAAF	Royal Australian Air Force

SBS	Special Broadcasting Service
SMEs	Small and medium enterprises
TBL	Triple Bottom Line
UN	United Nations
US EPA	United States Environmental Protection Agency
WOWER	Whole of Government Energy Report

Glossary

Australian Building Greenhouse Rating (ABGR)	A rating system developed by the Department of Energy, Utilities and Sustainability that measures building and tenancy energy efficient and greenhouse gas emissions.
Central Services Power	Energy used for services in office buildings common to all tenants. It can include building air conditioning, lifts, security and lobby lights and domestic hot water.
COMCAR	A VIP car-with-driver service, to a wide range of clients including parliamentarians, eligible members of the judiciary, holders of high public office and official guests of the Australian Government.
Co-mingled Recycling	A process that can recycle metals, plastics, paper products and glass in a single bin system
Cost Effective	Economical in terms of the goods or services received for the money spent. More specifically, in reference to the Energy section (chapters 5 and 6) of the report, cost effective is defined as a minimum 15 per cent rate of return.
Ecologically sustainable development (ESD)	Using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased. (sourced from the National Strategy for Ecologically Sustainable Development, 1992)
Environmental Management Systems	An organisational plan and strategy to identify and to manage the environmental impact of the organisation.
Green Procurement	Procurement activity that takes into account environmental impacts.

Green Vehicle Guide	A vehicle emissions and air pollutants rating system for new motor vehicles available in Australia that are under 3.5 tonnes gross vehicle mass. The GVG assigns a one to ten rating for greenhouse emissions and a separate one to ten rating for air pollutants, these two scores are then combined for an overall rating of one to twenty.
ISO 14001	International Standards Organisation standard for environmental management systems.
Stretch targets	Exceptionally high goals that require substantial effort to achieve.
Tenant Light and Power	Energy used in tenant operations in buildings whose primary function is office space. It can include tenancy lighting, office equipment, supplementary air conditioners and boiling water units.
Value For Money	<i>Value for money</i> is the core principle underpinning Australian Government procurement. In a procurement process this principle requires a comparative analysis of <i>all</i> relevant costs and benefits of each proposal throughout the whole procurement cycle (whole-of-life costing).
Whole of Life Costing	The process of identifying and documenting all the costs involved over the life of an asset. Whole of Life costing recognises that risks may vary over a procurement cycle. The key step is to identify and compare, as far as possible, all relevant risks, costs and benefits on a common basis over the whole procurement cycle.
Eco Buy	A program in Victoria that supports local government and businesses in purchasing environmentally friendly products.

Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999)	Commonwealth Act related to the protection of the environment and the conservation of biodiversity. The objectives of the act include providing for the protection of the environment, especially those aspects of the environment that are of national environmental significance and to promote ecologically sustainable development.
Environmentally Friendly Paper	Paper that involves the use of recycled content or processes that minimise environmental impact.
National Greenhouse Strategy	The Australian Government strategy for advancing Australia's domestic greenhouse response.
Green Buildings	Buildings designed or refurbished to be highly energy efficient and minimise environmental impacts.
Greenhouse Challenge Plus	Program run by the Department of the Environment and Heritage designed to support and encourage industry's management of greenhouse gas emissions through emissions inventory reporting, and through the development and implementation of action plans to achieve cost effective abatement.
Multi Function Device	Office equipment that performs the functions of photocopier, printer and fax in the one machine.

Executive Summary and Recommendations

Executive Summary

Background

1. The Australian Government has indicated that it aims to be at the forefront in environmental purchasing practice through:

- buying goods and services that seek to minimise possible environmental impacts;
- working with industry to encourage continuous reduction in the adverse environmental impact of goods and services; and
- assessing the environmental impact of goods and services against informed and internationally recognised standards and methods.¹

2. Procurement of goods and services by Australian Government agencies was valued at over \$17 billion in 2003–04². This makes the Australian Government a significant purchaser of a range of goods and services, from office supplies through to building management services. The impact of government procurement practices can include greenhouse gas emissions from energy consumption in buildings and vehicles, waste to landfill from paper, equipment and office refurbishments as well as the over consumption of scarce natural resources such as fresh water. For the purposes of the audit, the Australian National Audit Office (ANAO) considered green procurement to be procurement activity that takes into account environmental impacts.

3. The Australian Government has introduced (or agreed with the States and Territories) a range of policy measures to improve energy efficiency in buildings, reduce vehicle emissions and packaging waste and report on aspects of sustainability in its own operations. The National Strategy for Ecologically Sustainable Development provides broad strategic directions and framework for governments to direct policy and decision-making. The Strategy facilitates a coordinated and co-operative approach to ecologically sustainable development (ESD) and encourages long-term benefits for Australia over short-term gains. A range of guidance on good practice has also been provided through the Greening of Government website and specific publications such as the Environmental Purchasing Guide.

¹ Greening of Government website <<http://www.deh.gov.au/industry/agency-performance/purchasing/policy.html>>

² The \$17 billion figure is sourced from Finance database on contracts. It includes information from FMA Act agencies but there is no aggregate information on the value of purchasing contracts from CAC Act entities.

4. The objective of the audit was to assess and report on the progress being made by agencies subject to the *Financial Management & Accountability Act 1997* and entities subject to the *Commonwealth Authorities & Companies Act 1997*:

- in realising value for money from the procurement process, with a specific focus on buildings, services and products using whole of life cycle assessments; and
- in the consideration and management of environmental impacts in specifications and contracts.

5. The emphasis of the audit was on green office procurement and sustainable business practices and the value for money within this context. As such, the audit report provides a status report on the implementation of ESD within the office environment of the Australian Government. The audit used a survey approach in conjunction with selected audit investigations to obtain information across 71 agencies and entities selected on the basis of materiality in procurement and coverage across large, medium and small organisations. The agencies selected represented approximately 35 per cent of all government bodies and over 95 per cent of all procurement spending noted on the Department of Finance and Administration (Finance) database on contracts.

Key findings

Chief Executive Instructions (CEIs) and internal policies (Chapter 2)

6. CEIs and internal policies can provide the priority and impetus relating to the standards expected of Australian Government officers when making decisions for procurement of goods and services. They provide important agency-specific support for the whole of government Commonwealth Procurement Guidelines (CPGs). From the ANAO survey, most respondents (92 per cent) stated that they had high-level documentation in their CEIs or internal policies relating to value for money in procurement. While whole of life cycle costing principle is integral to the CPGs, half of respondents indicated that they did not have instructions or internal policies in relation to whole of life cycle costing.

7. In addition, less than half of respondents had references to minimising environmental impacts and compliance with government policies and targets. This is an important reporting requirement for Australian Government agencies under the *Environment Protection and Biodiversity Conservation Act 1999*.

8. The ANAO appreciates the need to avoid CEIs or internal policies becoming too large and unwieldy. However, 25 per cent of respondents

commented that green procurement policy was not sufficiently clear or precise in terms of what is required. Some 10 per cent of respondents also considered that green office procurement was not a priority in their agency. Clear internal guidance on these matters would assist in providing leadership and giving higher priority to important compliance issues in Australian Government bodies and assist with its integration into operational decision making.

Guidance to agencies (Chapter 2)

9. The audit examined the extent to which guidance from the Greening of Government website and other specific guidance (such as in relation to Finance procurement advice) had been beneficial to procurement practice. From the ANAO survey, the majority of respondents (68 per cent) considered that current guidance useful. However, over a quarter of respondents did not find the guidance useful (27 per cent).³ Some 38 per cent of respondents also found identifying 'green' products or 'green' suppliers difficult and time-consuming. Expanding purchasing guidance to provide further information on suitable products that would meet the requirements of the CPGs and have environmental attributes (such as being produced with lower greenhouse gas emissions or cleaner production methods) would assist Australian Government bodies in this area.

10. From the survey responses there was clearly a considerable interest in the Greening of Government Website and most respondents had used the material in addition to the CPGs. The main criticism from respondents was that the information on the Greening of Government website was hard to locate or access. A number of respondents commented about the need to consolidate environmental purchasing information into a single 'one-stop-shop' with clear links between the Department of the Environment and Heritage (DEH) and Finance websites.

Environmental Management Systems (Chapter 2)

11. The Government's policy in relation to Environmental Management Systems (EMS) is that agencies and entities were encouraged to develop and implement an EMS based on the internationally recognised ISO 14001 or an equivalent standard by December 2002 and accredit at least one of their larger sites to ISO 14001 or an equivalent standard before December 2003. Secretaries and Chief Executives were to report by March 2002 to their Ministers (copied to the Minister for the Environment and Heritage) if there were particular

³ Five per cent of respondents did not comment on this question. The lack of response generally reflected a new person taking over the position or the absence of a person with enough familiarity with the guidelines to meaningfully comment.

circumstances such as the costs of taking up the actions significantly outweighed the benefits.

12. The ANAO survey indicated that 32 respondents (45 per cent of respondents) had an EMS in place. Only seven respondents (10 per cent) indicated that they had an EMS certified to ISO 14001. Only one agency had been sufficiently 'encouraged' to advise their Minister (copied to the Minister for the Environment and Heritage) if there were particular circumstances preventing action in this area. The survey indicated that 39 agencies had not followed this policy requirement. Where respondents had implemented an EMS there was a significantly better environmental performance. Those respondents with an EMS: identified less barriers to green procurement, set more environmental targets, had undertaken more energy and water saving initiatives, had a greater knowledge of the waste produced and were more active in recycling. These findings demonstrate some of the benefits in having an EMS, and some examples of good practice in relation to energy performance targets are outlined in this report.

Reporting (Chapter 2)

13. Under section 516A of the *Environment Protection and Biodiversity Conservation Act 1999* Australian Government agencies are required to 'report on the effect of their actions on the environment and identify any measures to minimise the impact of these actions on the environment'. Less than half of the 71 survey respondents (41 per cent) indicated that they had reported the effect of their procurement actions on the environment. Given that the Australian Government spent \$17 billion on procurement in 2003–04, this should logically be an area for inclusion in the reporting from larger agencies in particular. In addition, some 80 per cent of respondents identified measures they were taking to minimise the impact of their actions on the environment. Reporting on environmental performance is likely to improve in some Australian Government bodies in the future with 11 respondents indicating that they were planning a triple bottom line report within the next three years. Currently only two agencies produce triple bottom line reports. Such a report aims to provide more detailed information on the social, economic and environmental performance of the organisation.

Office stationery (Chapter 3)

14. In providing a diverse office environment for some 131 000 employees, the Australian Government consumes a significant amount of paper, stationery supplies and information and communications technology equipment. The government procures over \$20 million of paper each year. From the ANAO survey, 42 per cent of respondents stated that they use recycled products. Some 21 per cent also indicated that they use environmentally friendly

products such as 'environment choice'. Almost 30 per cent of respondents indicated that they use environmentally accredited suppliers. This 'supply-chain' management approach to purchasing is an important mechanism to encourage more sustainable practices in the market place. However, the tensions between sustainable business practices and value for money are illustrated through the result that paper with a recycled content cost respondents, on average, 12.4 per cent more per ream.

Office equipment (Chapter 3)

15. Office equipment accounts for an estimated 15 per cent of the Australian Government's tenant light and power consumption giving rise to about 60 000 tonnes of carbon dioxide equivalent greenhouse gas emissions. The ANAO survey found that in relation to specifications or tenders for the procurement of office equipment such as photocopiers and printers:

- 63 per cent of respondents gave higher consideration to multifunctional devices over single function machines;
- 61 per cent of respondents used whole of life cycle costing assessments as standard procedure;
- 55 per cent of respondents required energy management options to be activated on their computers; and
- 83 per cent of respondents had energy management options on office equipment that enabled office equipment to power down during non-use periods.

16. While energy efficiency has significantly improved for office equipment over time, all FMA Act agencies and CAC Act entities should ensure that purchasing decisions meet government policy requirements in this area – particularly in terms of applying whole of life cycle costing and the active application of energy management options.

17. From the ANAO survey, only 24 per cent of respondents specify in their information and communication technology (ICT) purchasing contracts provisions for the recycling or reuse of computers. Computers can contain lead, cadmium, mercury and brominated flame retardants in the plastics which are a known health hazard. Evidence from a variety of studies indicates that in 2005, some 731 500 computers will go to landfill and this will involve 19 751 tonnes of material and some 7 400 tonnes of hazardous waste. However, the number of computers becoming obsolete annually in Australia will

continue to grow every year, to the point where in ten years, 1.77 million personal computers will require end-of-life management every year.⁴

18. Advice from respondents during the course of the audit indicated that Australian Government computers are either leased from private sector providers or in the case of a small number of agencies, owned by the agency itself. Advice from respondents and providers is that obsolete computers are usually auctioned or provided to not-for profit organisations at the end of their economic life. In the longer term, computer and ICT waste is likely to be a major environmental problem. To address this, the ANAO has suggested that product stewardship guidelines and specifications be introduced to reduce the potential waste stream in this area.

Motor Vehicles (Chapter 3)

19. The Australian Government has set a target that requires the Government fleet to contain at least 28 per cent of vehicles in the top half of an emissions rating system - the Green Vehicle Guide (GVG) by December 2005. The target was voluntary but was aimed at the entire Commonwealth fleet, although it did not include the Department of Defence's (Defence) commercial fleet of fit for purpose and passenger vehicles (5 761 vehicles). Since the introduction of the policy, the number of vehicles in the Australian Government Fleet has reduced from 8 000 to 7 311 (June 2005). An analysis of passenger vehicle greenhouse gas emissions indicates that since 1997–98, Australian Government fleet emissions have decreased 17.3 per cent, which is in line with a similar drop in fleet numbers.

20. Since the target was introduced, the proportion of vehicles achieving the GVG target (that is the objective of the policy) has decreased from 17.9 per cent to 12.5 per cent, as at June 2005. Consequently, it is unlikely that the GVG target has had any significant impact to date and the 2005 target is unlikely to be met. The Australian Taxation Office (ATO) is an exception and is one of the very few agencies with large fleets that are likely to meet the target set for 2005.

21. Some of the main reasons for the lack of success were:

- financial discounts of up to 30 per cent for larger, less fuel-efficient motor vehicles;
- the voluntary nature of compliance with the target: and
- a limited range of medium sized motor vehicles over 2 litres available for lease.

⁴ Meinhart Infrastructure & Environment Pty Ltd report for multimedia Victoria (March 2004); Electronic Waste Recycling Development Strategy for Victoria.

22. The fleet target is planned for review in December 2005. The ANAO has suggested that agencies review the energy efficiency of their fleets and consider measures to improve their GVG scores in future lease contracts. A range of measures to reduce greenhouse gas emissions, such as emissions offsets programs that are already being implemented by a small number of Australian Government agencies, could be considered. These programs offset emissions through tree planting or investment in other projects that reduce greenhouse gas emissions.

Water efficiency (Chapter 4)

23. With water restrictions in place throughout much of Australia during 2005, Government agencies should be aware of their water consumption and the need for conservation measures. While there is currently no policy requirement, it is clearly an area where agencies can potentially lead by example to reduce consumption and lower their costs and impact on the environment.

24. The ANAO survey found that most agencies had done little to reduce water consumption although a number of respondents had taken positive steps such as flow reduction measures (30 per cent), leak detection (35 per cent) and installing water metering (28 per cent). More positively, 59 per cent of agencies had installed water efficient dishwashers. While measuring actual water use remains an issue, research for the Department of the Environment and Heritage has estimated water use of Commonwealth bodies at approximately 19 100 ML/year and potential savings of 2 300 ML/per annum could be achieved if more agencies introduced water saving measures. If achieved, this would have the added bonus of providing financial savings of \$5.28 million per annum, although these savings would accrue throughout the supply chain (that is building owners and service providers as well as tenants).

Waste minimisation (Chapter 4)

25. The ANAO survey identified some of the good practices being implemented by a small number of agencies in terms of reusing materials, reducing the waste stream and lowering cost overheads in office refurbishments. From the ANAO survey, only 12 agencies indicated that they conducted whole of life cycle costing assessment as a standard procedure when entering into contracts for office refurbishments. However, Defence and DIMIA have actively sought to achieve best practice in the recycling of building and demolition with over 90 per cent being achieved in two large building demolitions.

26. In more general waste management, the survey indicated that, 65 per cent of agencies were able to report on their waste management costs. The median cost of office waste management was \$43.50 per person in 2003–04.

For many agencies, there was little or no information available on their waste costs or volumes and this remains a key constraint for progress in terms of more sustainable business practices in this area.

27. Nevertheless, all agencies surveyed stated that they recycled their paper waste and there were high levels of recycling of toner cartridges. However, agencies recycle very little of their co-mingled and green waste. Only 16 of the 71 agencies could specify any actions being undertaken to assist the Government to meet its commitments to reduce packaging waste. As a minimum, agencies should consider inserting clauses in purchasing contracts to reduce packaging waste. This would assist the Australian Government in complying with its commitments to reduce waste under the National Packaging Covenant.

Whole of Government energy reporting (Chapter 5)

28. The Australian Government has had a long-standing policy to improve energy performance in Australian Government operations. The goal of the Australian Government's energy policy is to improve energy efficiency, and consequently, reduce the environmental impact of Government operations, and by so doing, lead by example.⁵

29. Since the introduction of energy efficiency measures, there is evidence to suggest that the energy intensity of Australian Government operations has improved substantially as agencies have undertaken a range of energy conservation measures. In terms of energy consumption for tenant light and power (which accounts for some 14 per cent of total energy consumption in the Australian Government):

- compliance has improved from 35 per cent of agencies complying with the Government's energy target⁶ in 1999–00 to 58 per cent of agencies in 2003–04; and
- average energy use per person has improved from 11 758 MJ/person in 1999–00 to 8 643 MJ/person in 2003–04.

30. As the largest energy-consuming agency, Defence has taken significant steps to improve its total energy use. While energy performance on Defence Establishments (which includes military bases and barracks) has improved from 1999–00 to 2002–03, it deteriorated in 2003–04 by almost 6 per cent. This is largely because of increasing Defence requirements, increases in personnel and improvements or expansion to Defence facilities. However, there are still

⁵ Department of the Environment & Heritage; Energy Use in the Australian Government's Operations; 2003–04 page 455.

⁶ The Government energy target for tenant light and power is 10,000 mega joules (MJ) per person

substantial energy conservation measures outstanding from an earlier energy efficiency program. It would be highly desirable to offset increases in energy use with sub-metering and energy conservation measures in all major sites as soon as practicable.

31. In terms of the accuracy of the aggregate Australian Government energy use, the ANAO found that energy efficiency has improved over time and substantial savings have been achieved because of the policy. However, the 15 per cent improvement noted in the 2003–04 report did not take into account that Defence reclassified the majority of its diesel and petrol consumption into ‘Defence Operations’; a category not included in aggregate government energy consumption reductions. This was done by Defence to provide a more accurate classification of their energy use but was not taken into account by the Department of the Environment and Heritage (DEH) in reporting the reduction in total energy consumption for 2003–04. Consequently, the ANAO considers that the published reductions in energy consumption should be adjusted by some 44 per cent (1997–98 to 2003–04). In other words, the total savings achieved have been closer to nine per cent than the reported 15 per cent. DEH has advised that greater emphasis will be given to energy intensity measures in future reports.

Energy efficiency initiatives in Australian Government agencies (Chapter 6)

32. Compliance with energy management requirements has been variable across the Australian Government. The ANAO identified that most respondents were undertaking some energy efficiency initiatives. However, this was not reflected in any depth across the range of total office spaces occupied by respondents. An analysis of responses indicated that 20 per cent of office tenancies had been energy audited and only 21 per cent of office tenancies had energy efficient lighting installed.

33. Respondents that had undertaken energy efficiency initiatives had improved their energy intensity significantly. Respondents with energy plans achieved reductions in energy consumption of 20 per cent as opposed to the 9 per cent achieved by agencies without these plans. Agencies that have undertaken energy audits, in at least one office space, achieved a 19 per cent reduction in energy consumption as opposed to the 10 per cent achieved for those that did not. Considerable gains were found by agencies that introduced timer switches on heating and lighting (32 per cent reduction in energy use compared to 2 per cent for those who had not taken this action) and in sensor switches (25 per cent reduction in energy use compared to 7 per cent for those who had not taken this action).

Overall audit conclusion

34. The audit has identified a small number of better practice examples of green office procurement across the Australian Government. However, overall there were significant shortcomings identified in terms of the application of whole of life cycle costing and in the management of the environmental impacts of procurement decisions. Compliance with Australian Government policy requirements has improved over time in areas such as energy efficiency in buildings with important greenhouse gas emissions and cost savings being achieved.

35. While green procurement in areas such as purchasing recycled paper can cost more, financial savings of almost \$10 million per annum could be achieved if agencies were more proactive in energy and water conservation in particular. However, it is noteworthy that over a quarter of surveyed agencies indicated to the ANAO that agency budgetary constraints or processes do not allow green office procurement even though this might produce longer-term financial savings for the agency.

36. Australian Government agencies as a whole have been successful in meeting the Government's expectations in improving energy efficiency in office buildings. Centrelink has been a leading agency in this regard. Agencies are well placed to meet future energy efficiency requirements. The actions taken by agencies such as Defence and DIMIA in the recycling of building and demolition waste have also been good practice.

37. However, performance in managing motor vehicle emissions, reducing or recycling general office waste and conserving water has been variable and in the majority of cases, poor. Implementing EMSs (one of the key management controls designed to improve environmental performance) has been slow and few agencies have met the timetable originally envisaged by the Government. In addition, the audit has highlighted the absence of specific requirements in areas such as waste management and water conservation and shortcomings in agencies meeting the Government's stated objective to be at the forefront of environmental purchasing practices. As a consequence, sustainable development has not, as yet, been fully integrated into Australian Government operations.

38. Because of the scale of Australian Government operations, even small improvements in these areas are likely to have positive environmental impacts. The ANAO has made 16 recommendations that have been designed to enhance the performance of Australian Government agencies in green office procurement and sustainable development practices. The final recommendation aims to strengthen the sustainability framework for Australian Government operations through measures such as promoting best

practice green office procurement and the measurement and mandatory reporting on progress towards sustainability targets.

Agencies' response

39. 43 agencies or entities responded to the audit. Generally, agencies and entities agreed with or were generally supportive of the recommendations. Qualifications were made by a small number of agencies to particular recommendations. In these cases, the qualifications related to a perceived need for further guidance, the relative size of an agency or to resource constraints. Two agencies disagreed with some parts of recommendations, (the Department of Defence and the Department of Health and Ageing). This was because of conflicting administrative requirements and processes.

40. The lead agency responsible for much of the policy concerning green office procurement, the Department of the Environment and Heritage commended the ANAO for the work done on this audit. The Department considered that the audit report will assist them in their work of encouraging agencies to improve their environmental performance. The documented cost savings and performance benefits from initiatives pursued by agencies audited will also be of value to those still considering further actions.

41. The Department noted that while they generally support the recommendations, their capacity to achieve improvements in the environmental performance of other agencies was limited. Resources available for this work needed to be used strategically. DEH considered that environmental purchasing (and a commitment to improved environmental performance generally) needed to become standard practice across the Australian Government. While there is a strategic role for DEH in that process, primary responsibility for performance needs to rest with government agencies themselves.

42. To this end, DEH are proposing to develop a new policy framework for agency environmental performance in 2006, which will assist in setting priorities for future agency action. As part of this, the Department will develop a new website to allow content from DEH and from other agencies to be presented as a one stop shop for the public sector.⁷

⁷ Responses from the Department of the Environment and Heritage, the Department of Finance and Administration and the Department of Defence

Recommendations

Listed below are the recommendations discussed in the body of the report. Recommendations to Secretaries of Departments and agency Chief Executives applies to all Financial Management and Accountability Act 1997 (FMA Act) agencies and Commonwealth Authorities and Companies Act 1997 (CAC Act) entities.

Recommendation No. 1
Para 2.4

In order to ensure that environmental considerations are integrated into procurement decisions the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so), amend their Chief Executive Instructions or internal policies as appropriate to require purchasing officials to have regard to whole of life cycle assessment and the Environmental Purchasing Guide in their purchasing decisions.

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation.

Recommendation No. 2
Para 2.11

In order to enhance the accessibility and quality of guidance on green procurement, the ANAO *recommends* that the Department of the Environment and Heritage, in consultation with the Department of Finance and Administration and other agencies as appropriate:

- (a) enhance the accessibility of information on green procurement;
- (b) include examples of 'whole of life cycle' assessment as an integral part of procurement; and
- (c) ensure that all information is regularly updated and supported with better practice examples where practicable.

Agencies Response:

The Department of the Environment and Heritage agreed with this recommendation.

**Recommendation
No. 3
Para 2.22**

In order to improve sustainable business practices and strengthen compliance with government policy, the ANAO recommends that FMA agencies and CAC entities (where they have not already done so) give further consideration to:

- (a) implementing an EMS based on ISO 14001 or an equivalent standard for their organisation; and accrediting at least one of their larger sites to ISO 14001 or an equivalent standard; or
- (b) advising their Minister if there are particular circumstances preventing action in this area (for example, where the costs may outweigh the benefits for smaller agencies).

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation, however one entity qualified their agreement.

**Recommendation
No. 4
Para 2.30**

In order to improve the quality and consistency of sustainable practices, the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so), consider implementing challenging but realistic targets in water, energy, waste, and vehicles as part of the design and implementation of their Environmental Management Systems.

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation.

**Recommendation
No. 5
Para 3.12**

In order to improve the value for money from common office goods and services and the consistency of sustainable *practices*, the ANAO *recommends* that:

- (a) the Department of the Environment and Heritage in consultation with relevant agencies, investigate the scope for benchmarking the environmental attributes and indicative value for money of common office goods and services across agencies; and
- (b) FMA agencies and CAC entities consider the opportunities for group purchasing clusters for the procurement of common office goods where appropriate.

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation, however, two of these agencies qualified their agreement.

**Recommendation
No. 6
Para 3.30**

In order to improve the impact of the energy requirement in office equipment purchases and the management of electronic waste, the ANAO *recommends* that:

- (a) the Department of the Environment and Heritage and the Department of Finance and Administration include, as part of their agency guidance, good practice principles in relation to managing surplus or obsolete computer and ICT equipment (including appropriate stewardship clauses in ICT contracts); and
- (b) FMA agencies and CAC entities (where they have not already done so), ensure that, in line with current government policy, all new appliance purchases include a provision for a 4-star or better energy rating under the Appliance Energy Efficiency Rating Label Scheme, where available and fit for purpose.

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation, however, three of these agencies qualified their agreement.

**Recommendation
No. 7
Para 3.61**

In order to reduce emissions from the Australian Government's vehicle fleet, the ANAO *recommends* that the Department of the Environment and Heritage in consultation with the Fleet Monitoring Body in the Department of Finance and Administration and other agencies, consider, as a priority within the planned review of the policy:

- (a) measures to encourage greater energy efficiency in future vehicle leasing arrangements or purchases within the Australian Government fleet; and
- (b) setting appropriate individual fleet energy efficiency targets for agencies (including for the Department of Defence fleets), in consultation with agencies, so that each agency is clear on what is required.

Agencies Response:

The Department of the Environment and Heritage agreed with this recommendation.

**Recommendation
No. 8
Para 3.68**

In order to improve the environmental performance of the Australian Government fleet, the ANAO recommends that FMA agencies and CAC entities (where they have not already done so), consider, where practicable and consistent with current Government policy, options to reduce greenhouse gas emissions.

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation, however, two of these agencies qualified their agreement.

**Recommendation
No. 9
Para 4.11**

In order to improve the quality and consistency of more sustainable water management practices, the ANAO *recommends* that:

- (a) the Department of the Environment and Heritage provide better practice guidance to agencies and entities on the costs, benefits and indicative payback periods from the adoption of water conservation practices; and
- (b) FMA agencies and CAC entities (where they have not already done so), consider appropriate targets and cost effective measures to reduce water consumption.

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation, however, one entity qualified their agreement.

**Recommendation
No. 10
Para 4.24**

In order to improve sustainable practices in office refurbishments or fit-outs, the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so):

- (a) ensure that whole of life cycle assessments for building construction, office refurbishments and fit-outs explicitly include environmental impacts with the aim of achieving reductions in waste to landfill and improving value for money over the longer term; and
- (b) consider measuring and reporting on the environmental management of major refurbishments as part of reporting on sustainability in their annual report.

Agencies Response:

41 agencies and entities agreed with or were supportive of this recommendation, however, one agency qualified their agreement. The Department of Health and Aging and the Department of Defence disagreed because of their need for further guidance in relation to part (b).

**Recommendation
No. 11
Para 4.35**

In order to improve the quality and consistency of sustainable practices, the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so), consider the introduction of cost effective:

- (a) commingled and organic waste recycling schemes for office waste management; and
- (b) clauses in purchasing contracts to minimise packaging waste.

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation, however, one agency qualified their agreement.

**Recommendation
No. 12
Para 5.30**

In order to improve the quality and consistency of reporting on Energy Use in Australian Government Operations, the ANAO *recommends* that the Department of the Environment and Heritage focus reporting on changes in energy intensity in future reports and include appropriate caveats on any reported changes in total energy consumption.

Agencies Response:

The Department of the Environment and Heritage agreed with this recommendation.

**Recommendation
No. 13
Para 6.20**

In order to reduce energy consumption in Australian Government operations and improve compliance with Government policy, the ANAO recommends that FMA agencies and CAC entities (where they have not already done so):

- (a) consider introducing energy management plans that take into account operational and property management requirements across the portfolio;
- (b) conduct energy audits, where appropriate, to determine high priority energy savings that can be made across the organisation;
- (c) ensure that separate digital metering for tenant light and power and for central services is standard practice at all major sites with ongoing leases; and
- (d) implement all energy conservation initiatives that are cost effective within remaining lease periods.

Agencies Response:

42 agencies and entities agreed with or were supportive of this recommendation, however, three of these agencies qualified their agreement. The Department of Defence disagreed with part (d) of the recommendation on the basis that funding decisions for energy initiatives are considered on their merits within overall facility funding.

**Recommendation
No. 14
Para 6.37**

In order to improve the sustainability and leadership role of the Australian Government in good building design the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so):

- (a) consider an appropriate energy rating scheme for their existing property portfolio such as the Australian Building Greenhouse Rating; and
- (b) develop an efficiency target for portfolio tenancies and buildings using this energy rating scheme.

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation, however one agency qualified their agreement. The Department of Health and Aging disagreed with part (a) of the recommendation. Health commented that 'while the Department agrees with an energy-rating scheme for new properties, they do not support it for existing properties. The Department considers that like many agencies housed in older stock, the exercise of evaluation is not regarded as cost effective given the remaining lease period.

**Recommendation
No. 15
Para 6.45**

In order to improve compliance with government policy and strengthen sustainable business practices, the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so) consider joining the Greenhouse Challenge Plus program.

Agencies Response:

43 agencies and entities agreed with or were supportive of this recommendation, however, five of these agencies qualified their agreement.

**Recommendation
No. 16
Para 7.11**

In order to strengthen the sustainability framework for Australian Government operations, the ANAO recommends that the Department of the Environment and Heritage pursue strategies to:

- (a) achieve best practice green office procurement by Australian Government agencies and entities, in energy efficiency, water conservation, waste management and in procurement practices by an appropriate date (such as 2008–09);
- (b) update current policies and targets and introduce additional required targets to reflect the commitments in each of the areas identified above;
- (c) develop a comprehensive website and communications program to advise Australian Government agencies and entities on the requirements and mechanisms to achieve the targets; and
- (d) regularly measure performance against the targets and monitor and review the targets and policies in terms of their alignment with better practice; and
- (e) require reporting on progress towards sustainability targets.

Agency Response:

The Department supported this recommendation in general, but noted that there are limitations on what strategic actions they can pursue across a range of issues at once. The Department proposes to develop a strategic framework for public sector environmental performance (no such framework currently exists). This framework will contain agreed principles, which can then inform further policy development in specific areas, such as water and waste. This further work can be a mix of updating existing policy and developing new policy in areas currently not addressed, such as water efficiency.

The Department will set up a new website to act as a portal for information on sustainability in government, which will be a key mechanism for communications to agencies and other stakeholders. It will be accompanied by an email discussion list open to agency staff that will enable them to share ideas and experiences as a network. In their public consultation, the Department will assess options for improving the quality and scope of current reporting by agencies.

The Department agreed with parts (c) and (d) of this recommendation. A new website and communication strategy are identified requirements that are being considered in the finalisation of the revised energy policy for Government Operations.

Agency energy performance is monitored annually through WOGER. Agencies data are reviewed and monitored through the EDGAR data validation process to provide feedback on performance in relation to targets and policy requirements.

Audit Findings and Conclusions

1. Background

This chapter provides a definition of green office procurement, an overview of the procurement policy environment, and an explanation of what is encompassed in green office procurement and why it is a priority for Australian Government agencies.

What is green office procurement?

1.1 The Australian Government has indicated that it is seeking to be at the forefront in environmental purchasing practice through:

- buying goods and services that seek to minimise possible environmental impacts;
- working with industry to encourage continuous reduction in the adverse environmental impact of goods and services; and
- assessing the environmental impact of goods and services against informed and internationally recognised standards and methods.⁸

1.2 Procurement of goods and services by Australian Government agencies was valued at over \$17 billion in 2003–04⁹. This makes the Australian Government a significant purchaser of a range of goods and services, from office supplies through to building management services. The impact of government procurement practices can include greenhouse gas emissions from energy consumption in buildings and vehicles, waste to landfill from paper, equipment and office refurbishments as well as the over consumption of scarce natural resources such as fresh water. For the purposes of the audit, the ANAO considered green procurement to be procurement activity that takes into account environmental impacts.

1.3 Some 126 different agencies are involved in procuring office supplies, diverse materials and equipment, office facilities, maintenance and building services. This means that agencies collectively have the potential to influence the market through their purchasing decisions.

The procurement policy environment

1.4 The National Strategy for Ecologically Sustainable Development was developed in 1992 by the previous Australian Government and subsequently endorsed by the current Government. It provides broad strategic directions and framework for governments to direct policy and decision-making. The

⁸ Greening of Government Website <<http://www.deh.gov.au/industry/agency-performance/purchasing/policy.html>>

⁹ Department of Finance and Administration database on contracts

Strategy facilitates a coordinated and co-operative approach to ecologically sustainable development (ESD) and encourages long-term benefits for Australia over short-term gains.

1.5 The Financial Management and Accountability Act 1997 (FMA Act) sets out the legal accountability framework for core Australian Government agencies. Section 44 of the FMA Act requires a Chief Executive to manage the affairs of the agency in a way that promotes proper use of the Commonwealth resources for which the Chief Executive is responsible. For the purposes of the FMA Act, proper use means efficient, effective and ethical use. The Commonwealth Procurement Guidelines (CPGs) are issued by the Minister for Finance and Administration under Regulation 7 of the Financial Management and Accountability Regulations 1997 about matters relating to the procurement of property and services. Officials performing duties in relation to the procurement of property or services must have regard to the CPGs.

1.6 The Finance Minister's (CAC Act Procurement) Directions 2004 apply to relevant Australian Government entities subject to the Commonwealth Authorities and Companies Act 1997 (the CAC Act). The Finance Minister's (CAC Act Procurement) Directions 2004 (the directions) require relevant CAC Act bodies to have regard to the CPGs when engaged in duties related to the procurement of property or services, and to comply with the mandatory procurement procedures in all circumstances for procurements covered by the CPGs. The Directions also advise relevant CAC Act bodies on interpreting the CPGs within the context of their legislation and the regulations.

1.7 In January 2005, the Department of Finance and Administration (Finance) released the revised Commonwealth Procurement Guidelines. Value for money remains the core principle governing procurement practice in agencies subject to the FMA Act. The guidelines emphasise that this principle requires 'an assessment of alternative procurement options to select the option that achieves the required procurement objective (outcome) and represents the best value for the Government, while taking into account all relevant:

- 'costs and benefits over the whole procurement cycle (whole of life cycle costs); and
- legislation and Government policies - including measures implementing international obligations in respect of government procurement, whether or not such policies are stipulated in the guidelines'.¹⁰

¹⁰ Adapted from Department of Finance and Administration; January 2005, 'Guidance on Complying with Legislation and Government Policy in Procurement'; Financial Management Guidance No 10; Page 3.

1.8 For agencies subject to under the FMA Act, compliance with these policies is reinforced through regulation 9 that states that:

an approver must not approve a proposal to spend public money (including a notional payment within the meaning of section 6 of the Act) unless the approver is satisfied, after making such inquiries as are reasonable, that the proposed expenditure: (a) is in accordance with the policies of the Commonwealth; and (b) will make efficient and effective use of the public money...

1.9 The main environmental policies relevant to office procurement are outlined in Table 1.1.

Table 1.1

Environmental framework for green office procurement

Strategy or guidance	Relationship with procurement
The National Greenhouse Strategy and measures for Improving Energy Efficiency in Commonwealth Operations	These policies set <u>mandatory</u> energy use targets for lights and power for new leases and major refurbishments in Government office buildings. For tenant light ¹¹ and power the performance target is 10 000MJ per person per annum while for central services it is 500 MJ/metre ² . More specific policies also apply. All new appliances <u>must</u> have minimum energy ratings and power management features, and agencies must purchase office equipment that complies with the US Environment Protection Agency Energy Star standard (where available and fit for purpose).
Government Fleet Targets	For Australian Government agencies, there is a target to increase the proportion of vehicles in the top half of the Green Vehicle Guide from 18% to 28% by December 2005.
The Green Office Guide (2001)	The <i>Green Office Guide</i> provides information for procurement officers on buying environmentally friendly equipment and suggests agencies give preference to products and services identified as 'environmentally preferable' where quality, function and costs are equal or superior.
The Environmental Purchasing Guide and Checklists	The Environmental Purchasing Guide provides voluntary guidance on how to include environmental issues in value for money decision-making. Checklists cover the key types of goods and services purchased by the Australian Government.
The National Government Waste Reduction and Purchasing Guidelines	Agencies are expected to adopt waste reduction and purchasing plans.
The National Packaging Covenant Commonwealth action plan	The Covenant between the States, Territories and Australian Government outlines key actions to reduce the waste generation and environmental impacts of packaging (including packaging of goods purchased or produced by the Australian Government). It also encourages the purchase of recycled content products.
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Section 516 A of the Act specifies that agencies <u>must</u> include information about their performance on Ecologically Sustainable Development and actions on the environment (including measures to minimise the impact of the agency on the environment) in their annual reports.

Source: Department of Finance and Administration January 2005 Pages 14-15 and the *Environment Protection and Biodiversity Conservation Act 1999 (s516A)*

¹¹ Refer to section 5.2.1 and 5.2.2 for definitions on central services and office tenant light and power.

1.10 There is evidence of financial as well as environmental benefits in adopting green procurement practices. Buying energy-efficient, environmentally friendly equipment can provide substantial savings in electricity use.¹² The *Green Office Guide* indicates that savings (such as from introducing energy efficient lighting, photocopiers and computer equipment) of up to \$180 per 1 000 kilowatt-hours of energy cutting up to 80 per cent off the electricity bill. Better practice energy conservation can also cut 20-30 per cent off the air-conditioning costs in summer. This is because electronic equipment generates heat that requires additional cooling. Paper costs can be almost halved simply by printing double-sided. Using recycled paper saves trees. Every 100 reams of recycled office paper that is printed double-sided saves two trees, more than a tonne of greenhouse gas and almost a cubic metre of landfill space compared to 100 reams of paper that is not recycled or printed double-sided.¹³

International experiences in green office procurement

1.11 In January 2002 the Organisation for Economic Cooperation and Development (OECD), member countries agreed on a Council recommendation to improve the environmental performance of public procurement. The preamble to the recommendation noted that the scale of government purchases 'is such that greener public purchasing policies can:

- contribute to the development and diffusion of products and services which are less environmentally-damaging; and
- result in more cost-effective procurement practices'.¹⁴

1.12 Members agreed to eight steps that included:

- incorporating environmental criteria into public procurement of products and services, along with price and performance criteria;
- introducing financial, budgeting, and accounting measures to ensure that public procurement policies and practices consider the environmental costs of products and services; and
- the development of indicators to monitor and evaluate programs and policies.

¹² Good Environmental Choice Australia (The Australian Environmental Labelling Association-AELA) in association with Clean Up Australia The State of Green Procurement in Australia (2004) Pages 64-69

¹³ Australian and New Zealand Minerals and Energy Council and produced by the National Appliance and Equipment Energy Efficiency Committee (2001). *Green Office Guide; A Guide to help you buy and use environmentally friendly office equipment.*

¹⁴ Recommendation of the Council on Improving the Environmental Performance of Public Procurement; 23 January 2002 – C(2002) 3.

1.13 Green Public Procurement was also specifically mentioned in the Plan of Implementation for the World Summit on Sustainable Development, held in Johannesburg in December 2002. The Plan 'encouraged relevant authorities at all levels to take sustainable development considerations into account in decision-making and to promote public procurement policies that encourage development and diffusion of the Environmentally sound goods and services'.¹⁵

1.14 Since 1997 sustainable development has been recognised as an overarching goal of the European Union. In March 2004 the EU adopted public procurement directives to encourage the adoption of environmental considerations in technical specifications selection and award criteria and contract performance clauses.

1.15 In North America, the green purchasing initiative of the Commission for Environmental Cooperation (involving the governments of the USA, Canada and Mexico) has highlighted the business case for green procurement. The initiative indicated that Governments and companies are buying green because it results in benefits such as reducing overall costs, the opportunity to use materials more effectively, improving employee health and stimulating markets for innovative new products and services.¹⁶

1.16 There are also a large number of organisations and websites established to assist governments, companies, consumers and interested parties to establish or expand green procurement. Examples include:

- the Centre for a New American Dream's Procurement Strategies Program, (that helps U.S. state and local governments and other large purchasers incorporate environmental considerations into their purchasing);
- Consumer's Choice Council, (an association of 66 environmental, consumer, and human rights groups from 25 countries that supports ecolabeling and seeks to ensure that consumers have the information they need to purchase greener, more socially just products);
- Environmentally Preferable Purchasing Program and Database, (from the U.S. Environmental Protection Agency that provides a comprehensive source of information on green purchasing);

¹⁵ European Union (2004); Buying Green! A handbook on environmental public procurement. Page 7

¹⁶ The Commission aims to build North American markets for renewable energy and other green products and to facilitate green trade through ecolabeling and green purchasing. Serves as the Secretariat for the North American Green Purchasing Initiative, a clearinghouse of information for manufacturers, purchasers, and suppliers.

- Japan's Green Purchasing Network (an association of some 2 700 organisations, including corporations, government authorities, and environmental and consumer groups, that promotes the ideas and practices of green purchasing in Japan); and
- United Nations Environment Programme Sustainable Procurement Website that offers information about UN and multilateral efforts to promote sustainable procurement and that links to a database listing initiatives worldwide as well as product-specific criteria.

Audit objectives and scope

Audit Objective

1.17 The objective of the audit is to assess and report on the progress being made by agencies subject to the *Financial Management & Accountability Act 1997* and entities subject to the *Commonwealth Authorities & Companies Act 1997*:

- in realising value for money from the procurement process with a specific focus on buildings, services and products using whole of life cycle assessments; and
- in the consideration and management of environmental impacts in specifications and contracts.

1.18 The emphasis of the audit was on green office procurement and sustainable business practices and the value for money within this context. As such, the audit report provides a status report on the implementation of ESD within the office environment of the Australian Government.

Audit Scope

1.19 The audit surveyed 71 Australian Government agencies. Coverage included representative parts of all Departments of State and 35 per cent of all budget funded agencies (both CAC and FMA). The surveyed agencies covered over 95 per cent of the total contracts by value entered into by Australian Government agencies. The complete list of agencies examined is outlined in [Appendix 2](#)¹⁷.

¹⁷ The Department of Defence contains a mix of functions. The audit focused primarily on Defence's office function, rather than on operations and non-office based establishments (with the exception of the discussion on energy).

1.20 The audit considered the procurement practices of government agencies in the following areas:

- agency awareness of and compliance with Australian government policies and guidance, particularly in relation to whole of life cycle assessments and mandatory energy policies;
- an assessment of how useful central agency guidance has been;
- the implementation and impact of EMSs;
- the quality of reports to Ministers and Parliament on green procurement issues;
- actual practices in energy and water efficiency and conservation, the procurement of equipment and services, waste management and office vehicles; and
- an assessment of barriers to the implementation of green procurement.

1.21 An overview of some of the organisations included in the audit is set out below in table 1.2.

Table 1.2**Examples of agencies included in the audit by size**

	Examples of organisations	Suppliers (Expenses from ordinary activities) \$'000 ¹⁸	Environmental Management System (EMS)	Total Energy Use (Giga Joules) ¹⁹
Large organisations (25)	Centrelink	646 092	Yes – one EMS covering 0.25 per cent of Centrelink office sites and 1 per cent of full time equivalent staff, a corporate EMS is under development	449 116
	Defence	5 302 089	Yes – covers approximately 2 per cent of sites plans to have EMS covering all major sites by 2008	16 506 172
	Australian Tax Office	753 106	Yes – covers the 35 major sites	329 843
Medium organisations (19)	Health Insurance Commission	204 698	No EMS – Plans to implement by mid 2006	96 190
	Dept of the Prime Minister and Cabinet	20 158	No EMS – Plans to implement in early 2007	9 391
	Civil Aviation Safety Authority	34 954	No EMS – no plans for implementation	14 795
Small organisations (27)	Australian Public Service Commission	14 026	Yes – one EMS covering 16 per cent of sites	2 142
	Great Barrier Reef Marine Park Authority	10 734	No EMS – plans to implement in 2006	11 667
	Australian Sports Drug Agency	3 978	No EMS – no plans to implement	1 568

Source: ANAO survey of green office procurement

¹⁸ Extracted from Departmental Annual Reports 2003–04 (Suppliers; Expenses from ordinary activities)¹⁹ Extracted from Energy Use in Australian Government Operations 2003–04.

Audit methodology and structure

1.22 The audit was undertaken using a combination of: a survey and a validation of a sample of 12 Australian government agencies, a series of case studies on green procurement issues and statistical information gathered from the Department of Finance and Administration (Finance) and the Department of the Environment and Heritage (DEH).

1.23 The audit surveyed most materially significant agencies as well as a representative selection of other medium and smaller sized agencies. Some agencies were not included because:

- the agency had already been covered in a recently tabled audit or had been included in an audit on procurement currently in progress;
- the agency had been restructured or was now being incorporated into a department;
- the agency was a specialist agency not typical of office administration; or
- the agency was a trust fund or tribunal with no significant office environment.

1.24 Where agencies such as Defence and the Australian Customs Service had a mix of office and other activities that are difficult to separate, the audit sought to focus on materially significant areas with large office components. In Defence, the audit included all major office sites as well as Defence Establishments as relevant.

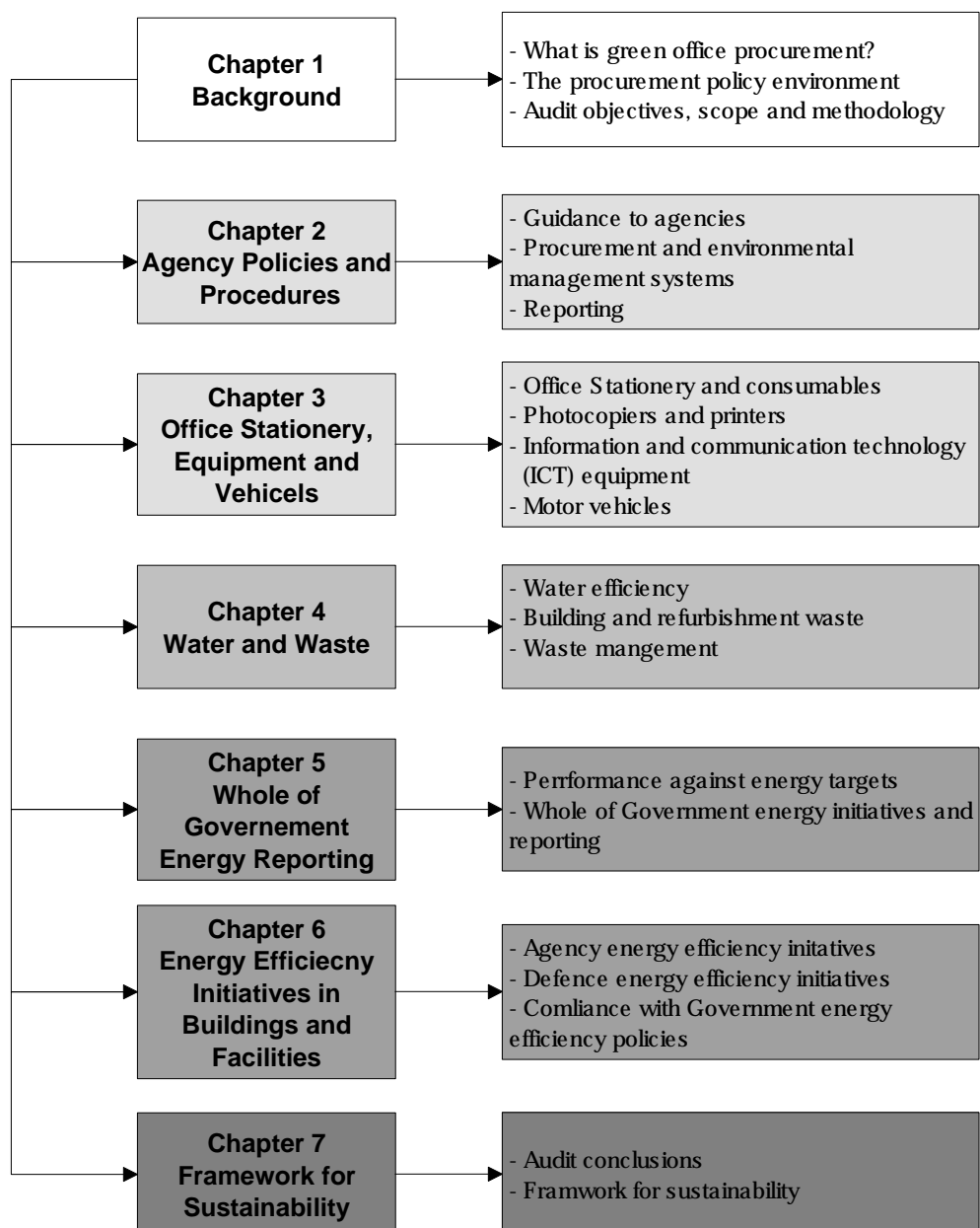
1.25 A sample of total agency responses was validated through an examination of 12 government agencies, representing 17 per cent of responses. In addition to the survey response, contracts and tenders were reviewed in a selection of the larger agencies, and interviews were conducted with relevant officers and contractors. This additional information was used to develop a more complete and accurate understanding of the office procurement processes in agencies.

1.26 The survey was developed in consultation with DEH and Finance. The survey questions were tested with seven agencies, prior to the survey, to ensure questions were technically accurate and answerable. These agencies were also surveyed. The ANAO also consulted with the Office of Sustainability in the Chief Minister's Department of the Australian Capital Territory (ACT) because of the significance of Australian Government practices in this area to the ACT. The survey format was designed, conducted and collated by ORIMA Research Pty Ltd.

Report outline

Figure 1.1

Report Outline



Source: Developed by the ANAO

Audit conduct

1.27 The audit was conducted in accordance with ANAO Auditing Standards. The audit commenced in February 2005 and the bulk of the fieldwork was conducted between February and July 2005. The total audit cost was \$328 252.

2. Agency Policies and Procedures

This chapter examines the green procurement policies and procedures in place for government agencies. Chief Executive Instructions, guidance to agencies, training and awareness, Environmental Management Systems and reporting are also examined.

Chief Executive Instructions (CEIs) and internal policies

2.1 For agencies subject to the *Financial Management Accountability Act 1997* (FMA Act) the chief executive instructions or internal policies explain the goals and policies of an agency and are determined by the head of the agency. For entities subject to the *Commonwealth Authorities and Companies Act 1997*, (CAC Act) procurement decisions are regulated through the Finance Minister's (CAC Act Procurement) Directions 2004 as well as by the internal policies and procedures of individual entities. There is no one-size-fits-all model for CEIs or internal policies although for FMA Act agencies, Chief Executives must manage the affairs of the Agency in a way that promotes the proper use of the Commonwealth resources for which the Chief Executive is responsible. If compliance with the requirements of the regulations, Finance Minister's Orders, Special Instructions or any other law would hinder or prevent the proper use of those resources, the Chief Executive must manage so as to promote proper use of those resources to the greatest extent practicable while complying with those requirements.²⁰

2.2 Through the ANAO survey, the audit tested whether CEIs or internal policies, provided a framework or outlined requirements relating to the procurement of goods and services. CEIs and internal policies provide a starting point for assessing whether internal controls are adequately documented and/or understood by officials.

2.3 From the ANAO survey responses, most agencies (92 per cent) had high-level documentation in their CEIs or internal policies relating to value for money in procurement. However, around half of agencies indicated that they did not have instructions or internal policies in relation to whole of life cycle costing while less than half had references to minimising environmental impacts (42 per cent) and compliance with government policies and targets (48 per cent). In the Australian Government's devolved business environment, leadership is an important factor in promoting better practice in office procurement. High level references to whole of life cycle assessment, minimising environmental impacts and using the Environmental Purchasing

²⁰ This point is made in Finance Circular No 2004/15 in relation to Chief Executive Instructions. Under section 44 Of the FMA Act, proper use means efficient, effective and ethical use.

Guide may strengthen consideration of these matters and assist agencies in their purchasing decisions.

Recommendation No.1

2.4 In order to ensure that environmental considerations are integrated into procurement decisions the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so), amend their Chief Executive Instructions or internal policies as appropriate to require purchasing officials to have regard to whole of life cycle assessment and the Environmental Purchasing Guide in their purchasing decisions.

Agencies' response

2.5 43 agencies and entities agreed with or expressed support for this recommendation.

Guidance to Agencies

2.6 The audit examined the extent to which guidance from the Greening of Government Website²¹ and other DEH guidance have been beneficial to procurement practice. Survey responses indicated that while the majority of agencies found the guidance useful, over a quarter of agencies did not find the guidance useful (27 per cent). In addition, some 38 per cent of respondents also found identifying 'green' products or 'green' suppliers difficult and time-consuming.

2.7 From the survey responses there was clearly considerable interest in the Greening of Government Website and most agencies had used the material. The main criticism from respondents was that the information was hard to locate or access. For example, one department commented that a priority would be:

better communication of policies and guidelines by the Department of the Environment and Heritage with procurement and property areas of Departments. A search of the DEH website reveals that the document is several layers into the site and not obvious or easily accessed. Also there is no link between the DOFA procurement guidelines and those of DEH. As a consequence, the DEH material is not an explicit document of reference when purchasing goods or services.

2.8 A number of respondents including Centrelink, the Department of the Prime Minister and Cabinet and the Reserve Bank commented about the need to consolidate environmental purchasing information into a single 'one-stop-shop' with clear links between DEH and Finance. More specific requests were

²¹ <http://www.deh.gov.au/settlements/government/purchasing/policy.html>

made by respondents in relation to whole of life cycle costing of products, the challenges in translating the checklists into practical application and the need to update some of the guidance on a more regular basis.

2.9 One possible approach to improve performance in this area is ECO-Buy, Victoria's green purchasing program. ECO-Buy works with organisations to increase their purchasing of recycled, greenhouse friendly and environmentally preferred products. The program is a joint initiative of the Municipal Association of Victoria, the peak body for Victorian Local Government; EcoRecycle Victoria, the state authority responsible for waste and litter management and the Victorian Greenhouse Strategy, Victoria's plan to reduce greenhouse emissions. ECO-Buy has expanded its focus from purchasing products with recycled content to also include greenhouse friendly and environmentally preferred products. As noted by ECO-Buy, 'the long-term success of recycling depends on developing markets for recyclable materials. Unless governments, businesses, and individuals make a concerted effort to buy recycled products, materials collected for recycling will not be used to their optimum potential'.

2.10 Expanding purchasing guidance to provide further information on suitable products that would meet the requirements of the Commonwealth Procurement Guidelines and have environmental attributes (such as being produced with lower greenhouse gas emissions or cleaner production methods) would assist Australian Government bodies in this area.

Recommendation No. 2

2.11 In order to enhance the accessibility and quality of guidance on green procurement, the ANAO *recommends* that the Department of the Environment and Heritage, in consultation with the Department of Finance and Administration and other agencies as appropriate:

- (a) enhance the accessibility of information on green procurement;
- (b) include examples of 'whole of life cycle' assessment as an integral part of procurement; and
- (c) ensure that all information is regularly updated and supported with better practice examples where practicable.

The Department of the Environment and Heritage response

2.12 Agreed. The Department will establish a new website to host relevant information on sustainability in government, including information on purchasing. The Department of Finance and Administration commented that in preparing any further guidance, the Department of the Environment and Heritage should consult with all agencies. Any further guidance should be

incorporated into the existing Environmental Purchasing Guide to improve accessibility.

Agency procurement systems

2.13 Throughout the course of the audit, respondents have commented to the ANAO that there are challenges in complying with the large range of policy requirements. Environmental policies are just one suite of requirements. In a devolved business environment, with multiple purchasing centres within and across agencies (including in some cases, joint program delivery between agencies), better guidance and better controls are needed if environmental purchasing practices are to improve. The Department of Education, Science and Training (DEST) has developed an option that might have broader applicability across the APS. This is discussed in case study 1.

Case study 1—The BUYiT - Electronic Purchasing Systems

The BUYiT system is DEST's electronic procurement management system that incorporates the Commonwealth procurement Guidelines and DEST business rules. The system 'filters' staff through delegate approvals and directs staff to the appropriate pro-forma tender, contract and evaluation documentation based on the nature of the procurement. The BUYiT system was released on 1 March 2004 and cost some \$1.6 million to develop. The system currently has approximately 3 350 procurements entered into the system with contracts totalling approximately \$340m.

An integral part of the system is the BUYiT help manual, which doubles as the DEST procurement manual. While not specifically designed to meet environmental purchasing requirements, the manual directly refers users to the Finance's publication 'Guidance on complying with Legislation and Government policy in procurement'. The system also indicates that staff should consider the department's responsibilities in relation to ecologically sustainable development and the potential impact the procurement may have on the environment. This is an area that could be enhanced in the future in terms of incorporating updated environmental checklists. A key feature of the system is that it links the procurement practice with the payment system. This has improved compliance with Executive and Parliamentary reporting requirements.

2.14 Agencies and entities may wish to consider the merits of adopting such an approach to strengthen the controls in agency purchasing arrangements. For FMA Act agencies in particular, the electronic purchasing system may enable them to demonstrate compliance with the provisions of section 44 of the FMA Act as well as with the CPGs. The CSIRO has indicated that they have recently implemented an internal online expense management system and that there may be potential to link green procurement practice with the payment system to improve compliance.

Procurement and environmental management systems

2.15 An Environmental Management System (EMS) is a set of cohesive elements that an organisation may use to minimise its impact on the environment. ISO 14001 is an internationally accepted specification for an EMS. It specifies requirements for establishing an environmental policy, determining environmental impacts of products or activities, planning environmental objectives and measurable targets, implementation of programs to meet objectives and targets, management review and corrective action. Some of the most commonly mentioned benefits of an ISO 14001 EMS are:

- improved perception of the key environmental issues by their employees and a better (greener) public image of the organisation;
- an increase in the efficiency and use of energy and raw materials (less waste);
- improved ability to meet compliance with environmental regulations; and
- dependence on a system rather than just the experience and capabilities of an individual to manage the environmental function of an organisation.²²

2.16 The Australian Government's policy in relation to EMS is that agencies were encouraged to develop and implement an EMS based on ISO 14001 or an equivalent standard by December 2002 and accredit at least one of their larger sites to ISO 14001 or an equivalent standard before December 2003. Secretaries and Chief Executives were to report by March 2002 to their Minister (copied to the Minister for the Environment and Heritage) if there were particular circumstances such as the costs of taking up the actions significantly outweighed the benefits.

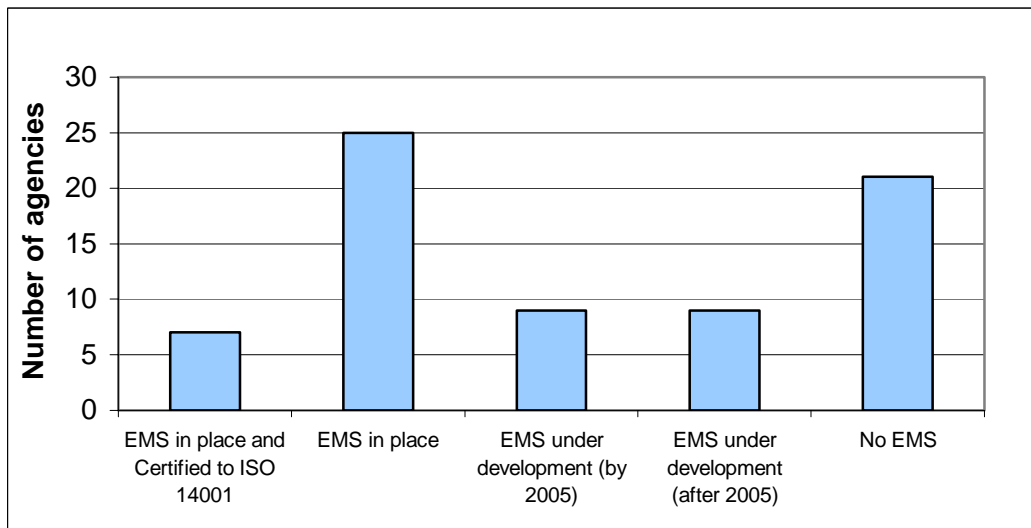
2.17 Of the 71 agencies and entities surveyed, 32 respondents (45 per cent) indicated that had an EMS in place. Thirteen agencies had an EMS that covered 100 per cent of their office spaces and seven respondents (10 per cent) had an EMS certified to the ISO 14001. Another nine respondents indicated that they were progressing towards certification for at least one of their sites.

2.18 Of the 39 respondents (55 per cent) that indicated that no EMS was in place, 16 agencies (23 per cent) indicated that they were in the process of developing an EMS and 23 agencies had no current plans to implement an EMS. The overall results are shown in Figure 2.1 below.

²² sourced from: www.iso14000.com/

Figure 2.1

Status of Environmental Management Systems for survey respondent



Source: ANAO Survey of Green Office Procurement

2.19 The majority of large Commonwealth agencies or entities had or were in the process of developing an EMS. Some 64 per cent of large agencies had an EMS whilst only 35 per cent of medium and small agencies had an EMS in place (for at least one site). The resource implications of setting up and maintaining an EMS might explain why only a small proportion of small and medium agencies have implemented an EMS. The reluctance to implement an EMS is particularly apparent for very small agencies of less than 100 people where the costs are more likely to outweigh the benefits. In addition, the survey highlighted that CAC Act entities had a much lower implementation of EMSs (37 per cent) compared to just over half of FMA Act agencies (51 per cent) with an EMS in place.

2.20 However, in general, agencies that had implemented an EMS had significantly better environment performance. Agencies that had an EMS in place: identified less barriers to green procurement, set more environmental targets, had undertaken more energy savings initiatives, implemented more water savings initiatives, had a greater knowledge of the waste produced and recycled more types of office waste.

2.21 In relation to government policy, DEH has advised that only one agency that had not implemented an EMS had been sufficiently 'encouraged' to advise their Minister (copied to the Minister for the Environment and Heritage) of the particular circumstances preventing action in this area. That is, only one agency that did not develop an EMS, advised their Minister of the

reasons why. The survey indicates that at least 39 agencies have not followed this policy requirement. While Ministers have not made the introduction of an EMS mandatory, there is a process for agencies to follow if they are unable to meet this requirement. Accordingly, given this requirement and the benefits that can be derived from an EMS, the ANAO considers that this process should be followed.

Recommendation No. 3

2.22 In order to improve sustainable business practices and strengthen compliance with government policy, the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so) give further consideration to:

- (a) implementing an EMS based on ISO 14001 or an equivalent standard for their organisation; and accrediting at least one of their larger sites to ISO 14001 or an equivalent standard; or
- (b) advising their Minister if there are particular circumstances preventing action in this area (for example, where the costs may outweigh the benefits for smaller agencies).

Agencies' response

2.23 43 agencies and entities agreed with or expressed support for this recommendation although, the Australian Centre for International Agricultural Research (ACIAR) qualified their agreement stating that 'ACIAR does not intend to move towards an EMS but is actively involved in trying to pursue a greening agenda in its operations'. ACIAR advised DEH of their intentions on 6 February 2004 and on 21 February 2005.

Performance targets - an integral part of an EMS

2.24 Challenging but realistic performance targets are a crucial part of an EMS as they provide the impetus for continuous improvement and for measuring success or shortcomings in implementation. Without targets it is hard to know the extent to which progress is being made towards a goal or whether corrective action is required.

2.25 While from the ANAO survey, all respondents reported that they had mandatory whole of government targets in relation to energy, almost half (49 per cent) did not indicate that they had any other environmental targets in place to cover other areas of environmental management. Generally, most respondents with a corporate EMS had corporate targets. Some examples are illustrated in table 2.1 as follows.

Table 2.1**Agencies with specific targets relevant to procurement**

Targets	Number of agencies that have targets	Percentage of agencies that have targets
Energy	29	41
Paper	24	34
Vehicles	21	30
Waste	20	28
Water	14	20
Chemicals	7	10
No targets	35	49

Source: ANAO Survey of Green Office Procurement 2005

2.26 A number of these agencies and entities have implemented targets over and above mandatory government policy requirements. These are illustrated in table 2.2 as follows.

Table 2.2**Examples of environmental management targets in selected agencies**

Category	Agency	Target
Paper	Reserve Bank of Australia	A reduction in consumption by 25 per cent by June 2007 ²³
Water	Australian Centre for International Agricultural Research	A 10 per cent reduction in water consumption per person by 2008
Energy	Environment and Heritage	Tenant Light & Power to be reduced to 4 500 MJ/person/pa by 2005–06
Waste	Department of Finance and Administration	Decrease the volume of total general waste by 3 per cent and increase the use of biodegradable bags by 100 per cent to reduce or minimise the amount of waste going to land fill
Chemicals (from equipment)	Foreign Affairs and Trade	Recycling collection of all fluorescent lamps was achieved in February 2005. The collection and recycling of batteries achieved May 2005.
Vehicles	The Department of Health and Ageing	The Department has set a Green Vehicle Guide rating of 10.5 or above target for 28 per cent of all fleet vehicles for 2004–05, and for this to increase to 38 per cent for 2005–06. The target for overall fuel consumption intensity is to be below 3.5MJ/km by the end of 2005. ²⁴

Source: ANAO survey of green office procurement

²³ This improvement is a pilot program in one part of the Reserve Bank and, subject to its success; it may be implemented more broadly.

²⁴ See section 3.2 for further details on the Green Vehicle Guide and target

2.27 Some agencies or entities are developing corporate targets and already have targets set for a few sites or divisions. The Australian Securities and Investments Commission (ASIC) commented that while they currently comply with the Government's energy target of being less than 10 000 MJ per person for tenant light and power, they have set a target for their largest site in Sydney to achieve 7 500 MJ per person by 2005. The Commission also indicated that they are also achieving government targets in their vehicle fleet and have 38 per cent of their pool fleet, and 42 per cent of their executive vehicle fleet, with Green Vehicle Guide ratings of better than 10.5.²⁵ As part of their EMS Certification in the Sydney office, ASIC were monitoring other consumption levels and will be using that information to set some further targets for 2005/06. ASIC also committed to implementing some of the better practices of the certified Sydney office in all other sites. The ANAO has been advised that these initiatives will include the requirement to monitor and measure volumes, leading to the ability to set targets in future.

2.28 Other agencies and entities are at an earlier stage in developing environmental management practice. For example, Centrelink commented that while there were targets in place for energy rating their property portfolio, they were developing their first *Environmental Aspects and Impacts Assessment* and were now collecting the data necessary to set appropriate targets. Two of their regional centres had set targets for paper, waste and vehicles. The Australian Broadcasting Corporation indicated that their targets are yet to be finalised. However, one aspect of the EMS implementation will be the creation of EMS coordination teams who will agree upon formal targets according to site-specific operational requirements. Progress toward these targets will then be both locally and centrally monitored. This point highlights the importance of having real data to set targets that will be meaningful. Targets can be somewhat arbitrary and less than helpful guides if there is no information on consumption patterns or expenditure either on a per person basis or comparative to similar organisations.

2.29 While respondents have whole of government energy targets already in place, integrating these within an EMS would add further impetus to both compliance with government policy and implementation of better practice.

²⁵ The policy target is that the Australian Government vehicle Fleet is to contain at least 28 per cent of vehicles in the top half of the Green Vehicle Guide rating system by December 2005. This policy gives effect to one of the measure announced by the Prime Minister in the 1997 *Safeguarding the Future* package of greenhouse gas reduction initiatives.

Recommendation No. 4

2.30 In order to improve the quality and consistency of sustainable practices, the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so), consider implementing challenging but realistic targets in water, energy, waste, and vehicles as part of the design and implementation of their Environmental Management Systems.

Agencies' response

2.31 43 agencies and entities agreed with or expressed support for this recommendation.

Training and Awareness Material

2.32 Important to good green procurement is the training of staff and improving the awareness of green office procurement across organisations. Australian Government agencies train their procurement staff through training programs such as the Certificate IV in government procurement. This specialist qualification covers the generic or core competencies required for working without close supervision in the public sector. However, while the qualification covers material such as understanding the business of government and the specialist competencies required for the procurement of goods or services in the public sector, it offers little in the way of a focus on sustainability or good practice in green office procurement.

2.33 Agencies were surveyed on the frequency of training programs. Only 33 per cent of respondents stated that training on green procurement issues occurred, of these 12 per cent stated that training was provided more than that once per year. Even when some green office procurement occurred, the coverage of green procurement issues was minimal. Discussions with agencies during the course of the audit indicated that little training was provided in this area.

2.34 Although evidence of specific training was minimal, the majority of survey respondents stated that awareness material was posted in offices in relation to the conservation of energy and waste. Some 82 per cent of respondents indicated that awareness material had been posted in offices. Agencies were also asked to give details of their awareness material; some of the better practice examples are illustrated in table 2.3.

Table 2.3**Green Office awareness material posted in agency offices**

	Is there any awareness material posted in agency offices (particularly around office equipment) regarding the reduction/conservation of energy and waste?
Department of Industry, Tourism and Resources	Various flyers in regard to recycle and reuse posted on notice boards and in photocopy/print centres.
Department of Veterans Affairs	Internal intranet site promoting ways for staff to be more energy and waste conscious. Signage in meeting rooms to promote turning off lights when rooms are unused. Notices around waste paper bins.
Australian Securities and Investments Commission	ASIC has an 'Environmental Policy' page on their intranet outlining green practices. Kitchens contain notices regarding recycling practices.
Australian Pesticides and Veterinary Medicines Authority	Posters are placed in prominent places with 'rethink, reduce, reuse, repair, recycle'
Department of Foreign Affairs and Trade	The department produces a 'Greening DFAT Newsletter' which provides advice/tips on working smarter environmentally, including procedures for reducing energy and goods consumption and the generation of waste as well as improving recycling performance

Source: ANAO Survey of Green Office Procurement

2.35 The ANAO considers that while respondents have been active in awareness raising, there is a significant gap in relation to the training offered. However, short courses have been developed that may have applicability for the Australian Government. For example, the NSW Department of Environment and Conservation in consultation with the Australian Institute of Purchasing and Materials Management has been providing short courses in better practice green procurement. Agencies may wish to consider adapting this type of course for their own business environment. Alternatively, DEH may wish to consider developing this type of approach more broadly for the Australian Public Service.

Barriers to Green Procurement

2.36 In addition to the barriers identified in section 2.2 (identifying green products and suppliers), the survey identified a number of other significant barriers facing respondents. 31 per cent of respondents noted that was that there were no financial incentives to facilitate green procurement. This was particularly noted in relation to pool vehicle purchases and in the case of office supplies such as paper and green power.

2.37 A significant barrier identified in the survey was that 19 agencies (27 per cent of agencies) stated that budgetary constraints or processes do not allow green office procurement even though this might produce longer-term

financial savings for the agency. This suggests that Secretaries and Chief Executive Officers may need to consider greater flexibility in their agency budgets to facilitate longer-term savings. In some cases, this may require a reconsideration of mix of capital and recurrent funding or in other cases there may be a need to discuss matters with Finance.

2.38 Other barriers identified included; that monitoring of office procurement is not sufficiently precise to know whether green office procurement is happening (27 per cent), the scale and dispersion of the agency across regional or county centres makes it difficult to coordinate procurement decisions (23 per cent) and the policy was not sufficiently clear or precise as to what is required of each agency (25 per cent). Smaller agencies also commented on the difficulties in meeting all of the requirements in procurement and related corporate functions. These points further reinforce the need for improved guidance and possibly suggest that group purchasing arrangements may need to be facilitated for smaller agencies.

Reporting

2.39 Under Section 516A of the *Environment Protection and Biodiversity Conservation Act 1999* agencies and entities are required to report on a number of environmental issues in their annual report. Agencies and entities are required to 'report on the effect of their actions on the environment and identify any measures to minimise the impact of these actions on the environment'. Less than half of the 71 respondents surveyed (41 per cent) reported that they had documented the effect of their procurement actions on the environment and included these in their latest annual report. Given that the Australian Government spends some \$17 billion per annum on procurement this should logically be an area for inclusion in the reporting from larger agencies in particular. More positively, some 80 per cent of agencies surveyed identified measures they were taking to minimise the impact of their actions on the environment. Some of the more informative procurement information from Annual Reports is outlined in the extracts in case study 2.

Case Study 2—Extracts from Annual Reports 2003–04 relevant to reporting on green office procurement practice.

Department of Defence – In reporting on its procurement practice, the Department commented in its Annual Report 2003–04 that ‘...consistent with the Commonwealth Procurement Guidelines and Best Practice Guidance, Defence updated its procurement policy manual to include references to tool kits and guidance from the draft *Environmental Purchasing Guide* administered by DEH, to improve environmental purchasing. Defence continued to purchase energy efficient office equipment and appliances consistent with the Commonwealth energy policy. Defence also continued to integrate environmental considerations, such as the requirement to avoid using ozone-depleting substances, into relevant contracts for the construction and maintenance of facilities.’

Department of the Environment & Heritage – In reporting as part of its Triple Bottom line report 2003–04, the Department commented that it had, ‘recycled 97 375 kg of paper 22 225 kg of Co-mingled recyclables, 22 060 kg of organic waste, 171 kg of printer & toner cartridges and 173 kg of fluorescent tubes. Reduced our combined gross greenhouse emissions to 530 tonnes of CO₂e, through better management of our energy use, fleet and waste. Our net emissions (after offsets) were 388 tonnes. If we had not undertaken our EMS initiatives, our business as usual emissions would be 1821 tonnes, or almost five times our current net emissions. Reduced our paper consumption to 15.08 reams per person per year (around 30 sheets per person per day), by using electronic circulation of press clips and duplex trays for all printers. This is down from approximately 45 sheets per person per day in 2002. We purchase recycled paper for our internal copying and printing’.

Department of Health & Ageing – In its Annual Report 2003–04, the Department commented that it ‘has conducted environmental reviews of four core buildings to identify the impact of current work practices, procedures and systems; and to establish benchmarks to enable improvements in environmental performance. The reviews found that the Department contributes to negative impacts on the environment through its use of electricity, petrol, paper and other materials consumed and in the generation of waste. The Environmental Management System provides a mechanism to monitor and mediate these impacts. Achievements for 2003–04 included a major upgrade of office lighting and lighting control systems in four buildings which in 2002–03 were responsible for 58 per cent of the Department’s total tenant light and power consumption. In six months these buildings recorded a 34 per cent reduction in energy, saving 121 191 kilowatt hours, equivalent to a reduction of 127.7 tonnes of CO₂ emissions. Further reduction strategies have been identified for implementation in 2004–05. More than 100 000 kilograms of Central Office waste was diverted from landfill through recycling initiatives for mobile phones, used printer and toner cartridges, office paper and cardboard. A waste audit in one of the larger Canberra buildings, has identified opportunities to divert materials from landfill. This enhanced recycling effort will be reported next financial year’.

ANAO Comment

The three extracts from Annual Reports above illustrate compliance with the Ecologically Sustainable Development reporting requirements. The latter two examples, illustrate going beyond strict compliance and how more sustainable environmental management can reduce waste and overheads in agencies with positive financial as well as environmental benefits. Quantifying the results year on year also provides a good example of changes being made over time. Foreshadowing future initiatives demonstrates the commitment of the agency to continuous improvement.

Triple Bottom Line Reporting

2.40 A further issue in reporting is the emergence of Triple Bottom Line Reports.²⁶ These may be included in the Annual Report and as indicated by the Department of Family and Community Services (FaCS);

‘the report also acknowledges to FaCS staff and the community at large that our operations have social, environmental and economic impacts—not just financial ones—and that these must be analysed and reported on transparently in the spirit of improvement’.

2.41 FaCS released its first triple bottom line (TBL) report in October 2003, making FaCS the first Australian Government department to publish a TBL report. In its role as secretariat to the Prime Minister's Community Business Partnership, FaCS is one of a number of organisations working to develop a national TBL reporting framework for Australian business. FaCS triple bottom line reporting also uses environmental indicators developed by DEH and underpinned by the 2002 Global Reporting Initiative (GRI) guidelines. Since that time DEH has also released a Triple Bottom Line Report in 2004.

2.42 While TBL reporting involves additional cost in the measurement and reporting of performance, it provides the opportunity for agencies to emulate good practice and enhance the accountability and transparency of their business operations. TBL reporting provides another dimension to good corporate governance by seeking to measure an organisation's contributions to economic prosperity, environmental quality and social well-being as reflected in management systems and actions, a commitment to stakeholder engagement and multi-dimensional measurement and reporting.²⁷

2.43 From the ANAO survey, 11 respondents indicated that they were planning a triple bottom line report within the next three years. Until 2003 agencies had little guidance on standards for TBL reporting. However this issue has been addressed through Standards Australia as well as through guidance from DEH (2003). The Department of Family and Community Services have also been involved in providing guidance to agencies in drafting the social aspects of TBL reports. Both these agencies have developed a better understanding of their business operations (including procurement) as a consequence of their TBL reports. Nevertheless, there is still no ‘right way’ to measure and report on non-financial inputs, outputs or outcomes. The methods used tend to emerge from the business logic and priorities. This

²⁶ A triple bottom line (TBL) report is an integrated approach to reporting on social, economic (including financial) and environmental outcomes against established benchmarks. Currently, the Departments of Family and Community Services and Environment and Heritage have produced public TBL reports.

²⁷ Allen Consulting Group; Dahle Suggett and Ben Goodsir (2002) Triple Bottom Line Measurement and Reporting in Australia. page viii

makes comparisons across agencies difficult. As noted in a recent report by a peak accounting body (CPA Australia):

‘There is considerable diversity in the format and scope of the sustainability disclosure practices of sample companies, notwithstanding that over 70 per cent of them operate in the same industry. The diversity of reporting scope and format impedes comparison of environmental and social performance between entities.’²⁸

2.44 A further issue identified in the report concerns the assurance process. This is important for the credibility of the report amongst stakeholders. The CPA report found that:

‘... only 13 (54 per cent) of the discrete reports had been subject to any form of audit or verification. Even within the subset of verified reports, the scope of the verification process varies.’

2.45 While not an issue for Australian Government agencies and entities at present (with only two TBL reports produced and both reviewed by the ANAO), a substantial increase in TBL reports may require careful consideration of the comparability and consistency of reporting and the extent of assurance provided. For agencies subject to the FMA Act, the Chief Executive Instructions (CEIs) explain the goals and policies of an agency and are determined by the head of the agency. The CEIs should provide the overarching framework and outline the key objectives and policy requirements relating to the procurement of goods and services for the agency. For larger agencies such as Defence there are also more detailed instructions that may contain the key objectives and policy requirements relating to the procurement of goods and services for the agency.

2.46 For entities subject to the CAC Act, internal management policies provide the framework for the procurement of goods and services. In addition, some *CAC Act* entities are subject to the Commonwealth Procurement Guidelines. Nevertheless, for all respondents, the ANAO expected that there would be at least a reference in internal policies to value for money, whole of life cycle analysis and minimising environmental impacts. Equally, important would be a reference or supporting material highlighting compliance with Australian Government environmental legislation, policies or targets as well as those of the States/Territories (especially as measures such as the National Packaging Covenant have been agreed by the Australian Government). Such an approach would be consistent with good practice and provide a level of corporate guidance to assist in enhancing the consistency of procurement decision-making across agencies and entities.

²⁸ CPA Australia, Professor S Jones, Dr G Frost, J Loftus, S van der Laan, (July 2005) *Sustainable Reporting, Practices, Performance and Potential*

3. Office Stationery, Equipment and Vehicles

This chapter examines the performance of agencies and entities in minimising the impact on the environment of these general office activities. General office activities such as the procurement of office stationery, office equipment and vehicles and waste and cleaning practices have a significant environmental impact.

Office Equipment and Consumables

3.1 In providing a diverse office environment for some 131 000 employees²⁹, the Australian Government consumes significant amounts of paper, pens, ink and toner, photocopiers, printers and other ICT equipment. Green procurement can conserve resources and minimise the amount of waste going to landfill. Additionally the recycling of many office consumables can produce net benefits and, in some cases, lower costs.

3.2 There are no mandatory policy requirements for agencies or entities to purchase environmentally friendly paper, stationery or toner cartridges. Agencies and entities have wide discretion under devolved purchasing arrangements, although compliance with the CPGs is a requirement for all FMA Act agencies. DEH's Environmental Purchasing Guide also provides guidance to agencies on good practice in green procurement.

Office stationery and paper

3.3 Office paper and stationery use have a significant impact on the waste sent to landfill and the use of resources. There are significant greenhouse emissions produced from both the manufacture and from paper decomposing in landfill. The government procures over \$20 million³⁰ of paper each year. Other stationery supplies such as pens, file stationery, diaries, notebooks etc, are an additional cost with implications for the waste stream going to landfill.

3.4 From the ANAO survey, 42 per cent of agencies stated that they give preference to recycled products. 21 per cent also nominated that preference is given to certified environmentally friendly products such as 'environmental choice'. Almost 30 per cent of agencies nominated that preference is given to environmentally accredited suppliers. This 'supply-chain' management approach to purchasing is an important mechanism to encourage more

²⁹ 131 522 as at June 2004 from State of the Service report, Australian Public Service Commission

³⁰ Calculated from surveyed agencies

sustainable practices in the market place. Table 3.1 outlines some of key areas where agencies give preference.

Table 3.1

Types of environmental preferences adopted by agencies

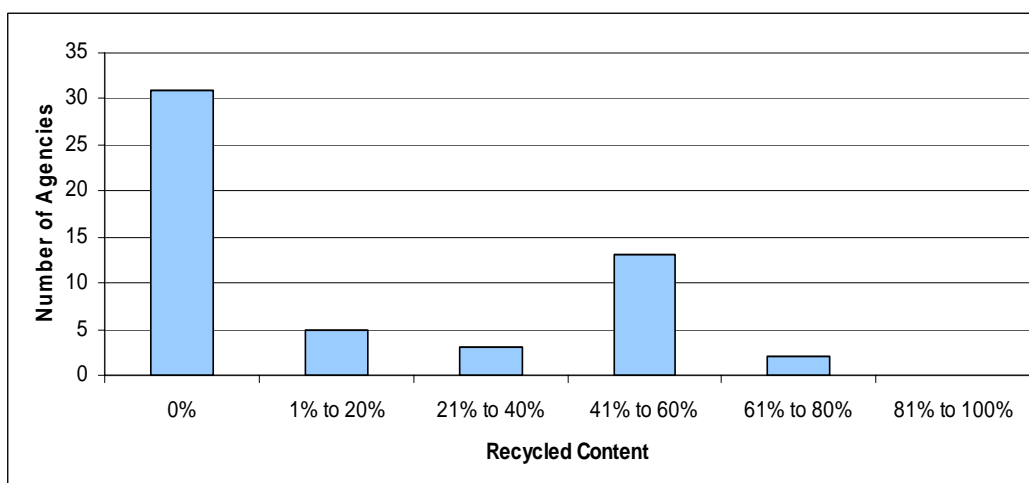
Types of environmental preferences	Number of agencies that have taken these initiatives	Percentage of agencies that have taken these initiatives
Recycled products (eg 80 per cent recycled photocopy paper)	30	42.3
Certified products such as paper with an Environmental Choice certificate/label	15	21.1
(Goods/services) from environmentally accredited suppliers such as those with an environmental management system	20	28.2
No response	29	40.8
Total Respondents	71	100.0

Source: ANAO Green Office Procurement Survey

3.5 As part of the ANAO survey, respondents were asked their common office paper purchasing practices. All respondents procure A4 80 grams per square metre (GSM) paper as their most commonly used office paper. Some 43 per cent stated that the most commonly used office paper contained recycled content. However, as illustrated in Figure 3.1, the majority of respondents consumed virgin paper.

Figure 3.1

Recycled content of most commonly used office paper in agencies



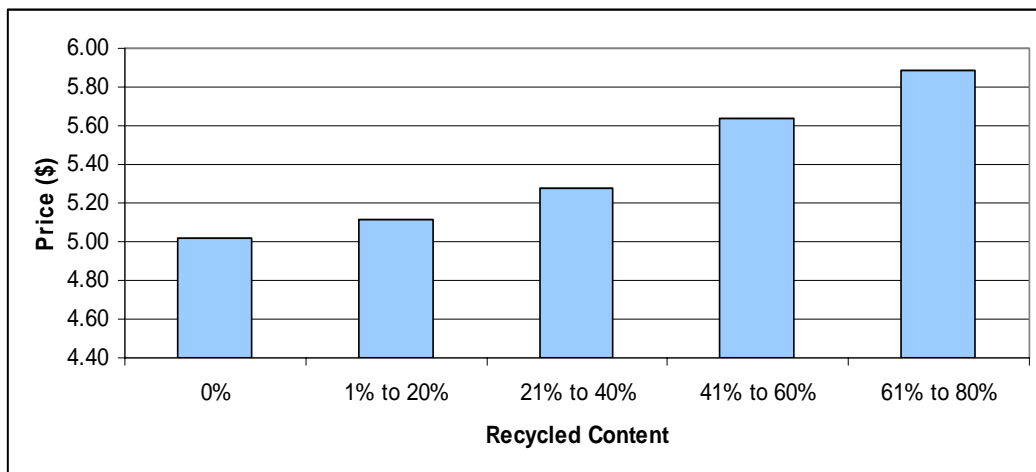
Source: ANAO Survey of Green Office Procurement

3.6 The average recycled content for agencies surveyed was 19.3 per cent, however, the major paper consumers, the Australian Taxation Office (ATO) and Centrelink, purchased virgin paper. Adjusting for the volume of the most commonly used office paper, the total recycled content of all paper used by agencies in the survey was only nine per cent.

3.7 However, there are additional costs associated with purchasing environmentally friendly paper. Paper with a recycled content of 41-60 per cent cost agencies, on average, 12.4 per cent more per ream. See Figure 3.2 below.

Figure 3.2

Average cost of most commonly used office paper



Source: ANAO Survey of Green Office Procurement

3.8 On the basis of the survey response, a further issue is that five agencies could not estimate the total paper costs for their organisation and 46 agencies could not provide the volume of most commonly used office paper. Eight agencies (11 per cent) could not provide details of the price paid for paper. In these circumstances internal delegation of purchasing arrangements had not been accompanied by sufficient controls and accountability mechanisms within the agencies. In contrast, agencies with centralised purchasing contracts such as the ATO were well placed in terms of good practice in this area.

3.9 In paper purchasing there are clear economies of scale accessed by large agencies. The ATO and Centrelink (for its National Support Offices) have both negotiated very competitive paper contracts – although at zero recycled content. The average price paid by larger agencies for virgin paper, \$4.74, was significantly lower than that of small and medium sized agencies at \$5.35 per ream. If agencies were to move to the price paid by large agencies,

the overall savings for the government would total some \$1.6 million per annum³¹.

3.10 Price has been noted as a barrier to the implementation of green procurement. However, price is not the only consideration in procurement. There are social and environmental costs that need to be taken into account if governments are to lead by example. Office waste can contribute to the waste stream going to landfill. If paper is sourced from unsustainable forest management practices it can also contribute to resource depletion. In other words, there are external, social costs that the community may have to bear from unsustainable purchasing practices. Whole of life cycle assessments can give a clearer picture of the full costs of procurement decisions.

3.11 Small agencies could also benefit from voluntary clustering on purchasing arrangements involving paper contracts that could attract the economies of scale that large agencies can achieve. Larger contracts could reduce the cost and increase the level of recycled and/or plantation fibre in the paper product. Alternatively a whole of government paper purchasing contract could achieve the same outcome, similar to the whole of government fleet and energy contracts. The ANAO notes that the Australian Government Information Management Office (AGIMO - now part of Finance) had conducted a small survey of common office prices, including paper, in 2004. This approach provides the opportunity for agencies to gain improved market intelligence and benchmark prices and environmental attributes. This is also consistent with the agreed OECD recommendation to improve the environmental performance of public procurement as discussed in paragraph 1.10 (concerning the incorporation of environmental criteria into public procurement of products and services, along with price and performance criteria).

³¹ Based on a 15 per cent reduction in total Australian government paper costs, this calculation does not consider paper use tied to photocopier contracts. Nor does it consider the volume of paper in outsourced printing contracts. This is very substantial in larger agencies with extensive information provided to large customer networks.

Recommendation No. 5

3.12 In order to improve the value for money from common office goods and services and the consistency of sustainable practices, the ANAO *recommends* that:

- (a) the Department of the Environment and Heritage in consultation with relevant agencies, investigate the scope for benchmarking the environmental attributes and indicative value for money of common office goods and services across agencies; and
- (b) FMA agencies and CAC entities consider the opportunities for group purchasing clusters for the procurement of common office goods where appropriate.

Department of the Environment and Heritage Response

3.13 In reference to part (a), the Department of the Environment and Heritage indicated that they agreed in principle although the Department considered that it is primarily the responsibility of agencies to determine particular value for money, in their own circumstances, of goods and services. However, on some issues such as energy, benchmarks are available through initiatives such as *Energy All Stars*.

3.14 In reference to part (b) the Department of the Environment and Heritage commented that group and cluster purchasing prospects should be investigated by agencies going to the market at about the same time for common goods and services. This can be guided by reference to the annual procurement plans now produced by agencies.

Agencies' response

3.15 43 agencies and entities agreed with or expressed support for this recommendation. The Department of Finance and Administration noted that any consideration of opportunities for the procurement of goods under a cluster arrangement should specifically take into account any impacts in terms of diminishing competition or any potential detriment to fair access to the Australian government procurement market for small and medium enterprises. The Department of Industry, Tourism and Resources (DITR) commented that officials undertaking procurement should ensure that procurement methods do not unfairly discriminate against SMEs, and that the Government is committed to FMA Act agencies sourcing at least ten per cent of their purchases from SMEs. DITR has raised a concern that environmental purchasing requirements can be onerous for SMEs, and the Department is concerned about the potential impact on the Government's procurement policy for SMEs.

3.16 The Australian Taxation Office expressed a qualification in relation to potential difficulties in coordinating cluster arrangements. The Australian Electoral Commission expressed a qualification that ‘the AEC would consider cluster arrangements in light of value for money considerations, current contractual arrangements in place and advice from Department of Finance and Administration in relation to the appropriateness of cluster arrangements.’

Office Equipment

3.17 Australian Government agencies have widely adopted information and communications technology (ICT) to support government service delivery and administration.³² While much of the technology has improved the efficiency of government administration, there are environmental costs. Three of the main impacts on the environment are:

- greenhouse emissions, through the equipment’s energy use and the heat produced that needs to be cooled by air conditioning;
- waste to landfill; and
- toxins released into landfill.

3.18 Office equipment accounts for an estimated 15 per cent of the Australian Government’s tenant light and power consumption giving rise to about 60 000 tonnes of carbon dioxide equivalent greenhouse gas emissions.³³ This section examines the three major categories of office equipment: photocopiers and printers; ICT equipment and miscellaneous office equipment; and outlines Commonwealth performance in these areas. The key considerations relate to product stewardship and resource conservation.

Photocopiers and printers

3.19 The energy use of office equipment represents a significant amount of the total energy used by an organisation. The reduction of energy used by office equipment can reduce costs and have a positive impact on the environment. The government policy, Measures for Improving Energy Efficiency in Commonwealth Operations³⁴ requires:

³² The Accenture Government Leadership Report (2004) ranked Australia in the top four countries in the use of ICT technology and noted Australia’s high level of service breadth. See also Australian Government Information Management Office Discussion Paper on Measures to Support Environmentally Friendly ICT (2004)

³³ Environmental Purchasing Checklist – Printers, Photocopiers and multifunctional devices; DEH 2004; www.deh.gov.au/industry/sustainable/greening/govt

³⁴ Measures for Improving Energy Efficiency in Commonwealth Operations 2000.

- all new office equipment to be United States Environment Protection Agency Energy Star compliant, where available; and
- all new appliances to have 4-star or better energy rating under the Appliance Energy Efficiency Rating Label Scheme, where available and fit for purpose.

3.20 However, there are currently no requirements for government agencies to buy recycled or recyclable office equipment; or any other environmental criteria.

3.21 From the ANAO survey, only 53 per cent respondents included the need to be energy star compliant in the specifications and tenders for office equipment purchases (Table 3.2). However, from discussions with three of the leading suppliers of photocopier and printers, the ANAO found that all new office equipment available through these companies is compliant with the EPA energy star standard. The ANAO considers it unlikely, therefore, that any agencies are in breach of this policy requirement even though only about half specify it as a requirement. The ANAO considers that the measure should be updated or reconsidered if it is going to be a useful mechanism to encourage green procurement. The ANAO has been advised that a process to update this policy requirement is currently underway. Other results on equipment purchasing practices are illustrated in table 3.2 below.

Table 3.2

Office equipment requirements in agencies

In the specifications or tenders for the procurement of office equipment (such as photocopiers or printers) does your agency require office equipment to:	Frequency	Percentage
EPA Energy Star compliance with a 4-star or better energy rating under the Appliance Energy Efficiency Rating Label Scheme	38	54
Limit or exclude hazardous materials such as mercury, benzene, CFC's or arsenic	26	37
Include recycled materials	15	21
Include the requirement for at least some components to be recyclable	24	34
Have Energy Management Options on office equipment, that enable office equipment to power down during non-use periods	59	83
No response	10	14
Total respondents	71	100

Source: ANAO Survey of Green Office Procurement

Information and communication technology (ICT) and equipment

3.22 Computers have a significant environmental impact both in the energy they use and the waste, including toxic chemicals that go to landfill at the end of life. The production of computers is a highly resource-intensive process that uses significant quantities of energy, water and raw materials. A study by the United Nations University found that:

- the materials intensity³⁵ of computer manufacturing is ten times higher than that of cars or refrigerators; and
- the manufacture of one desktop computer and standard CRT³⁶ monitor requires at least 240 kg of fossil fuels, 22 kilograms of chemicals and 1 500 kg of water – equivalent to that of a mid-sized car.³⁷

3.23 Obsolete or damaged computers and ICT equipment present real problems when placed in landfill because of their toxic materials content. Computers contain lead, cadmium, mercury and brominated flame retardants in the plastics which are a known health hazard. From a variety of studies, Environment Victoria estimates that in 2005, some 731 500 computers will go to landfill and this will involve 19 751 tonnes of material and some 7 400 tonnes of hazardous waste. However, according to a recent report the number of computers becoming obsolete annually in Australia will continue to grow every year, to the point where in ten years, 1.77 million personal computers will require end-of-life management every year.³⁸

3.24 From the ANAO survey, only 24 per cent of respondents specify in their ICT purchasing contracts provisions for the recycling or reuse of computers. Most computers are leased from private sector providers although agencies such as Centrelink purchase their computers. Advice from agencies and providers is that obsolete computers are usually auctioned or provided to not-for profit organisations at the end of their life. There are no product stewardship caveats or conditions to manage the potential waste problem. In the longer term, it is likely to be a major environmental problem and agencies,

³⁵ Materials intensity is a measure of the environmental impact intensities of infrastructures, goods, and services (Centre for Design RMIT and www.deh.gov.au)

³⁶ CRT is an acronym for Cathode Ray Tube. CRTs have been the standard computer monitor for some years. These are gradually being superseded by LCD (Liquid Crystal Display) monitors that have lower energy consumption and less harmful substances such as lead.

³⁷ Williams E (2004) Energy Intensity of computer manufacturing Environmental Science and Technology 38 (22) 6166-6174. See also Environment Victoria (2005) Environmental Report Card on Computers.

³⁸ Meinhart Infrastructure & Environment Pty Ltd report for multimedia Victoria (March 2004); Electronic Waste Recycling Development Strategy for Victoria.

in consultation with DEH, may wish to give consideration to product stewardship guidelines and specifications to reduce the potential waste stream in this area. In Victoria, a product take-back scheme where manufacturers take responsibility for recycling electronic products like computers, televisions and mobile phones, is currently being developed. This approach provides an illustration of what could be initiated by agencies that purchase their ICT equipment.

3.25 In terms of energy management considerations for ICT equipment, the ANAO survey found that 55 per cent of respondents require energy management options to be installed on their computers and 76 per cent required LCD screens. This is an evolving area as FMA Act agencies and CAC Act entities upgrade their equipment over time. However, explicitly including energy conservation, as part of the whole of life cycle assessment of energy in equipment specifications and tenders is an area that could be further improved in some Australian Government agencies.

3.26 At the national level, AGIMO (in Finance) has released a paper on Measures to Support Environmentally Friendly Information and Communications Technology.³⁹ The main directions indicated in the paper were for Finance to augment Australian Government guidance on environmentally sound ICT through;

- a better practice checklist (by the end of June 2006);
- updating the next edition of the *Guide to ICT Sourcing for Australian Government Agencies* to include reference to appropriate green office procurement guidance; and
- developing an ancillary module to assess environmental considerations in ICT investment.

3.27 DEH is also developing an environmental purchasing checklist for ICT services contracts in consultation with industry and government. DEH has also been developing a new proposal to replace the existing policy in terms of US EPA Energy Star compliance. While consideration of stewardship arrangements is being considered by both Australian Governments and State and Territory Governments, progress has been slow and Australian has been lagging behind Europe and many other countries in this area.⁴⁰

³⁹ AGIMO; Department of Finance & Administration (August 2005) Measures to Support Environmentally Friendly Information and Communications Technology

⁴⁰ Australian Consumer's Association 2003; (E-waste management) commented that Australian is years behind Europe, Asia and several US states in taking responsibility for the management of computer waste.

3.28 The ANAO considers that a key consideration in introducing these measures will be specific clauses to cover ICT stewardship requirements in leasing and purchasing arrangements. Because so many FMA Act agencies and CAC Act entities lease ICT equipment, stewardship clauses need to be sufficiently developed to ensure that these ICT providers are committed to the good practice principles and practices.

Miscellaneous office equipment

3.29 Miscellaneous office equipment includes dishwashers, fridges, hot water boilers and other general appliances. Agencies are required to procure 4-star or better energy rating under the Appliance Energy Efficiency Rating Label Scheme⁴¹. Of the respondents, over 57 per cent stated that in their specifications and tenders they require office appliances to be 4-star or better. Consequently, it is unlikely that all office appliances purchased are of a 4-star or better energy rating. Because this is a policy requirement, this is an area where agencies will need to give greater priority to in future purchasing decisions.

Recommendation No. 6

3.30 In order to improve the impact of the energy requirement in office equipment purchases and the management of electronic waste, the ANAO *recommends* that:

- (a) the Department of the Environment and Heritage and the Department of Finance and Administration include, as part of their agency guidance, good practice principles in relation to managing surplus or obsolete computer and ICT equipment (including appropriate stewardship clauses in ICT contracts); and
- (b) FMA agencies and CAC entities (where they have not already done so), ensure that, in line with current government policy, all new appliance purchases include a provision for a 4-star or better energy rating under the Appliance Energy Efficiency Rating Label Scheme, where available and fit for purpose.

Department of the Environment and Heritage response

3.31 In reference to part (a), the Department of the Environment and Heritage agreed to this recommendation. They commented that better practice guidance covering the purchasing, performance and life cycle impacts (including on disposal) of ICT equipment and services will be developed by the Department and AGIMO in 2005–06. This will also support the Computer

⁴¹ Measures for improving energy efficiency in commonwealth operations (2000)

Technologies for Schools program administered by the Department of Education, Science and Training.

3.32 In reference to part (b) the Department of the Environment and Heritage agreed with this recommendation and commented that Australian Government policy requires agencies to purchase equipment with 4-star or better energy efficiency performance and office equipment that complies with the US environment protection agency 'Energy Star' standard, where it is available and fit for purpose. To assist with implementing the above policy (and others), the Ministerial Council on energy is developing a database (www.eneregyallstars.gov.au) of high performing products. The database seeks to promote energy efficiency and provide the tools to better assess value-for-money.

Agencies' responses

3.33 A further 42 agencies and entities agreed or expressed support for part (b) of the recommendation with the exception of the one agency that disagreed. Three of these agencies or entities qualified their response. The Department of the Prime Minister and Cabinet qualified their response stating that 'government agencies should base their purchasing decisions only after careful consideration of the impact on all related government legislation and policies'. The Australian Electoral Commission qualified their response stating that 'the AEC only purchases major office machines with an Energy Star rating. Energy Star ratings will be considered in the context of value for money.' The Australian Sports Commission also qualified their response on the basis that some high rated appliances are cost prohibitive.

Motor Vehicles

3.34 Motor vehicles impact on the environment through the emission of greenhouse gasses (such as carbon dioxide) and air pollutants such as carbon monoxide, nitrogen oxides and particulate matter. For the Australian Government, with a fleet of over 13 000 vehicles⁴², the environmental impacts from motor vehicles are significant. Approximately 5.6 tonnes of CO₂-e (greenhouse gasses) per vehicle are emitted each year.

3.35 The total Australian Government Fleet is comprised of 7 414 vehicles tied to the government fleet management agreement with Leaseplan Australia, a private fleet management company, and 5 761 passenger, commercial and fit for purpose vehicles owned by the Department of Defence, also administered by Leaseplan Australia. The total asset value of the fleet is approximately \$399 million, with the cost of leased vehicles approximately \$83 million per annum.

⁴² Not including all CAC Act fleet vehicles. This only covers agencies that are part of the fleet management agreement.

The Fleet Monitoring Body (FMB), within Finance, manages the fleet management agreement contract and offers advice to agencies on general fleet issues. DEH is responsible for setting fleet emissions targets and general environmental policy relevant to the vehicle fleet.

3.36 As part of the Government's *Safeguarding the Future* package of measures to reduce energy consumption and greenhouse gas emissions (1997), the Prime Minister announced that the Australian Government would develop 'challenging but realistic fuel consumption targets for vehicles by 2003'.⁴³ This commitment also formed part of the Australian Government commitment to the National Greenhouse Strategy in 1998.

Green Vehicle Guide Target

3.37 As part of the Australian Government policy Measures for Improving Energy Efficiency in Commonwealth Operations, the then Australian Greenhouse Office (AGO), developed a target for the Australian Government fleet. This target aimed to have 28 per cent of government fleet vehicles (excluding the Department of Defence owned fleet) scoring at least 10.5 out of 20 points in the emissions rating system called the Green Vehicle Guide (GVG) by December 2005. As part of the formalisation of the target, the AGO presented the target to the APS Roundtable in February 2003. The APS Roundtable noted the target. Subsequently, carriage of the target, and overall policy, has been transferred to DEH.

3.38 The target is voluntary and is directed at the entire Australian Government fleet including vehicles under the fleet management agreement. Defence owned passenger, commercial and fit for purpose vehicles were not required to contribute to the target. Individual agencies were expected to contribute to the target but no individual agency targets were set. Agencies were advised that:

The APS Roundtable also noted that the overall target could be achieved without necessarily involving EVS, (executive vehicles scheme) and by extension FFP (fit for purpose vehicles), during normal vehicle turnover cycles. Given the different structures of vehicle fleets, and different abilities to make changes within fleet segments, departments and agencies will have different challenges in meeting this target.

3.39 The advice noted that if all of the improvement was to come from pool vehicles, which comprise two thirds of the fleet, around 38 per cent of these vehicles would need to score 10.5 or above on the GVG.⁴⁴

⁴³ The Hon John Howard MP; Prime Minister of Australia; 20 November 1997; 'Sustaining the Future', Statement

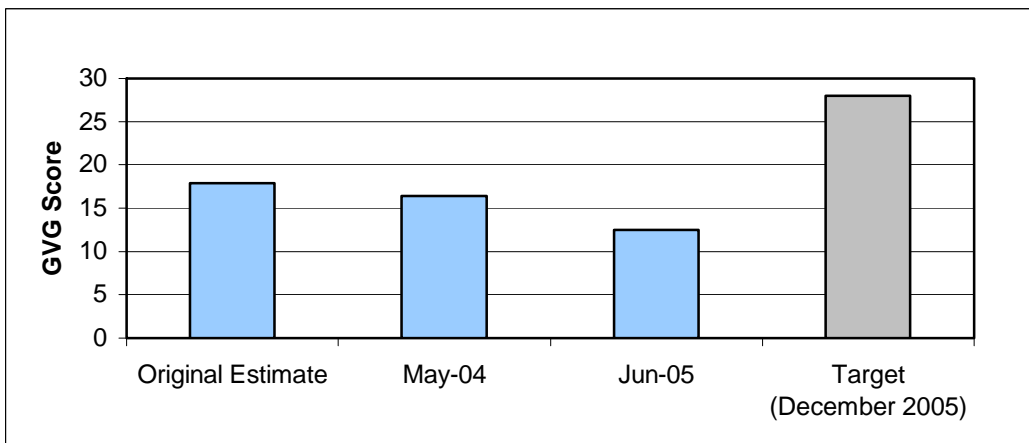
⁴⁴ Fleet Monitoring Body advice, Issue 01/05, 11 January 2005 - Green Vehicle Guide (GVG) Targets for the Government's Motor Vehicle Fleet

Performance Against Targets

3.40 Since the 28 per cent GVG target was introduced, the proportion of vehicles, in the Australian Government leased fleet above 10.5 on the GVG has deteriorated. It is now 30 per cent worse than the original estimate for the fleet. From an original estimate of 17.9 per cent in February 2003 it has decreased to 16.3 per cent in May 2004 and then to 12.5 per cent in June 2005. While the target has been in place for a relatively short period, this current score is well below the target of 28 per cent to be achieved by December 2005. This is shown in figure 3.3 below.

Figure 3.3

Australian Government leased vehicles performance against Green Vehicle Guide target



Source: Department of the Environment and Heritage

Fleet management agreement emissions

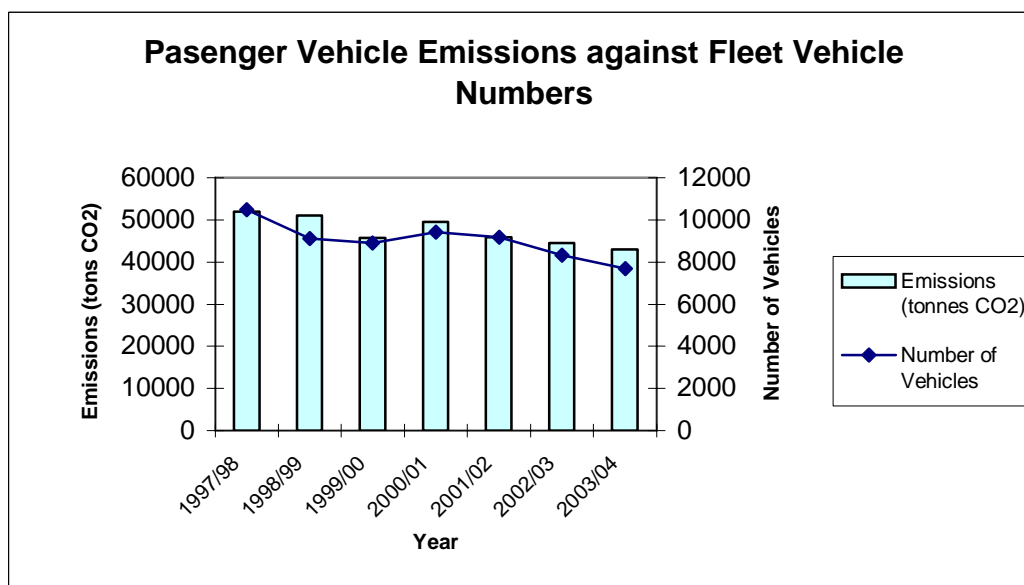
3.41 Fleet Management Agreement vehicles are comprised of the majority of FMA Act agency vehicles and some CAC Act entity vehicles. Approximately 900 Defence leased vehicles are also included as part of the Fleet Management Agreement. The total number of leased vehicles in the Australian Government Fleet has fallen from 10 490 (June 1998) to 7 391 (June 2005).

3.42 An analysis of passenger vehicle greenhouse gas emissions (1997–98 to 2003–04) indicates that since 1997–98 Australian Government passenger vehicle emissions have decreased 17.3 per cent, which follows similar changes in fleet numbers, falling 26.7 per cent (illustrated in figure 3.4 below). Total emissions from leased vehicles have decreased whilst emissions per vehicle have increased. The ANAO considers that the reduction in emissions, through reductions in fleet numbers has had positive environmental effect. This is

assuming that substitute arrangements, such as taxi and private vehicle use have not increased proportionally.

Figure 3.4

Australian Government Leased Fleet Vehicle Emissions⁴⁵



Source: Energy Use in Australian Government Operations (2003/04) and fleet monitoring body figures

3.43 The ATO is one agency that has significantly reduced the size of its vehicle fleet and improved its GVG score to potentially meet the target by December 2005. The fleet has been reduced from 2 282 in 2002 to 799 in June 2005 with a further reduction planned by December 2005. The ATO has been ordering smaller vehicles and new car models with better GVG scores. The ATO has advised that over 65 per cent of their fleet is expected to have a GVG score equal to or better than 11.5 after the current replacement program is completed in December 2005.

3.44 However, the ATO is the exception. Overall, the Australian Government fleet is still far less fuel-efficient than some state fleets (for example, in NSW and Queensland). The Australian Government fleet has approximately 10 per cent of vehicles as four cylinder cars. Advice from the responsible agency in each state indicates that in NSW the proportion of four cylinder cars is 46 per cent while in Queensland it is 39.3 per cent.

⁴⁵ Modified from data in Energy Use in Australian Government Operations 2003/04. Due to reclassifications by the Department of Defence of petrol from the other transport category of the whole of government energy report into the passenger vehicles category, an additional 130,000 GJ was included in the passenger vehicles data for 2003/04. The 2003/04 data has been modified to reflect previous years' data. See chapter 5 for further explanation of the reclassification.

Defence Vehicles

3.45 The Defence fleet is comprised of three categories of vehicles: leased, commercial and military⁴⁶. Defence leased vehicles are leased through the fleet management agreement and are required to contribute to the target (as discussed above). Defence's commercial fleet of 5 761 vehicles is owned by the department and is purchased through Leaseplan Australia as part of a separate purchasing arrangement. The commercial fleet is comprised of non-military, commercially available vehicles that are operated and maintained internally. The Defence commercial fleet has approximately 2 per cent of vehicles above 10.5 on the green vehicle guide.

3.46 Defence has no internal targets in their EMS to manage the emissions and environmental impact of its commercial fleet. However, during the course of the audit, Defence advised that they are now 'working towards achieving a target of 28 per cent of the passenger vehicles scoring greater than 10.5 by December 2006'.

3.47 As part of government energy reporting, Defence reports its GVG score for its combined fleet of commercial and leased vehicles. Given the size and subsequent environmental impact of the Defence fleet, the ANAO considers that targets and improvements to the efficiency of the entire Defence commercial fleet will assist in improving the efficiency and environmental performance of the Australian Government fleet overall.

3.48 If the Defence commercial vehicles are included in the whole of government fleet calculation, the number of vehicles at or above 10.5 on the GVG is 7.8 per cent, well below the 28 per cent target. It should be noted, however, that when the GVG target was set in 2003, Defence vehicles were not considered in any calculations. Defence has indicated that they recognise this is an area in need of attention and the agency is currently considering how best to improve this situation as part of the implementation action plan for progressing recommendations and improvements from the audit.

Implementation of the GVG target

3.49 In 2002 the AGO commissioned a consultancy to report on the feasibility of achieving the 28 per cent target. The report concluded that the target could be achieved with minimal change to the Australian Government Leased fleet (that is, a change of approximately 400 vehicles would be required across the 8 000 vehicles in the fleet in 2002). However, given the current GVG score of 12.5 per cent for leased vehicles, it is likely that the target was far less achievable than first thought. The original plan was to exchange some larger

⁴⁶ Defence military vehicles are not discussed in this paper as they fall outside the scope of the audit.

passenger vehicles with cars that had better GVG scores (that is a score of 10.5). However, following changes to the calculation of the GVG score from 2004, agencies were required to purchase a much higher proportion of small and medium cars to achieve the target.

3.50 However, regardless of the calculation of the GVG score, the decline in the proportion of the fleet achieving 10.5 or better on the GVG, indicates that the GVG targets have no significant impact to date on the overall efficiency or emissions levels of the Australian Government Leased fleet. The fleet target is planned for review in December 2005. As part of this review it would be highly desirable to consider how best to promulgate the objectives of the Government in this area.

3.51 The ANAO identified a number of constraints to the achievement of the 28 per cent GVG. These constraints included:

- the limited choice of medium sized vehicles available to agencies;
- the discounts available from the manufacturers of larger Australian vehicles;
- the absence of individual agency targets, and
- delays in the implementation of the Green Vehicle Guide.

These issues are discussed below.

Limited choice of medium sized vehicles available to agencies

3.52 Government agencies tied to the fleet contract are limited in their choice of vehicle. For pool vehicles, agencies are restricted to vehicles that are:

- made in Australia by manufacturers which have a local operation in vehicle assembly or component production and satisfy the criteria for registration as a Motor Vehicle Producer or Automotive Component Producer under the *Automotive Competitiveness and Investment Scheme Administration Act 1999*; or
- imported passenger motor vehicles with an engine capacity of 2000cc or less, marketed by the above manufacturers.⁴⁷

3.53 Only two cars available through Leaseplan with an engine capacity above 2000cc have a GVG score of 10.5 or above. There is only one car available for lease that has an engine capacity between 2000cc and 3000cc.

3.54 With the limited number of large cars with GVG scores above 10.5, agencies are limited in the flexibility of their fleets. This suggests that some

⁴⁷ Fleet Monitoring Body, Department of Finance and Administration. Fleet Guidance and Related Material

discussion with passenger vehicle manufacturers might be useful as part of the review of the GVG targets. A full list of vehicles available for pool use and their GVG scores are included in [Appendix 2](#).

Discounts available from the manufacturers of larger Australian vehicles

3.55 In the Leaseplan leasing arrangement the larger Australian made cars have been attracting a larger discount compared to smaller imported cars. For one particular six-cylinder vehicle with a low GVG score, discounts of some 30 per cent have been offered. This has resulted in similar leasing costs for large and small cars, even though the capital and fuel costs for small cars are much lower.

3.56 For the most popular leasing arrangement, a 24-month 40 000 km lease, the average cost of leasing the four base model six cylinder large cars on offer⁴⁸ were only 8 per cent more expensive than the base models of the four smallest. In one case the cost of leasing a small car can be more expensive than leasing a large car. This is particularly important for agencies when considering voluntary environmental criteria and targets under the GVG. The balancing process is also complicated by the fact that Australian made vehicles generally score less well on the GVG rating than smaller imported vehicles. The difficulty here is that Governments have tended to support Australian made vehicles because of the employment and other benefits for local industry. Consequently there are clear tensions between costs, preferences for Australian made vehicles and meeting the Government's requirements to reduce emissions. Considering further incentives for cars with a GVG score over 10.5 or giving preference to 4 cylinder vehicles as general pool vehicles may enhance the achievement of the target to reduce emissions. However, this matter really needs to be considered as a priority within the context of the full review of the GVG targets.

3.57 With recent fuel price increases, and the likelihood of fuel prices remaining high in the future, the costs of leasing larger vehicles are likely to increase relative to smaller cars. The value for money offered by smaller cars is therefore likely to improve. This likely change in incentives towards smaller vehicles will need to be considered when reviewing the GVG target in December 2005.

Absence of individual agency targets

3.58 For individual agencies, contribution to the GVG target is voluntary. With the diverse roles and functions in the Australian Government, some

⁴⁸ Basic models - Ford Fairmont Sedan or Holden, VZ Executive, Toyota Camry Altise and the Mitsubishi Magna

agencies are able to contribute to the target to a greater extent than others. Some agencies have large fit for purpose fleets, such as Finance's COMCAR fleet and the Australian Federal Police's special vehicles. This means that these agencies are less able to contribute to the target. Consequently, because fit for purpose (as well as executive vehicles) are not required to contribute to the target, the onus is placed on pool vehicles. Australian Government agencies such as Centrelink and the ATO, that have large pool fleets would in principle be required to contribute more towards the whole of government target.

3.59 The original plan for implementing the GVG target included individual agency targets. However, no targets, to date, have been set for individual agencies. Correspondence between DEH and agencies focussed on comparing these agencies against the 28 per cent target rather than developing individual targets for each agency. Without individual targets for agencies, agencies cannot calculate what percentage of their fleet should be above 10 on the GVG. The ANAO considers that individual agency targets are important and should be considered in the planned review of the whole of government GVG target.

Delay in the green vehicle guide

3.60 There was a delay of over 12 months in the production of the green vehicle guide. In the planning of the target the GVG was designed to be complete by mid 2003. However, the GVG was only formally released in August 2004. The delays in the release of the GVG meant that timely advice could not be given to agencies wishing to measure their GVG score and select appropriate vehicles. This is important as it takes agencies time to change the composition of their fleets. Tenders are usually considered every two years.

Recommendation No. 7

3.61 In order to reduce emissions from the Australian Government's vehicle fleet, the ANAO *recommends* that the Department of the Environment and Heritage in consultation with the Fleet Monitoring Body in the Department of Finance and Administration and other agencies, consider, as a priority within the planned review of the policy:

- (a) measures to encourage greater energy efficiency in future vehicle leasing arrangements or purchases within the Australian Government fleet; and
- (b) setting appropriate individual fleet energy efficiency targets for agencies (including for the Department of Defence fleets), in consultation with agencies, so that each agency is clear on what is required.

Department of the Environment and Heritage response

3.62 (a) Agreed. The Department will review this policy based on the data collected for the 2004–05 whole of government energy report (WOGER) and other relevant information. (b) The Department considers that it is primarily the role of individual agencies (through their EMS) to identify agency-level requirements to meet policy, based on guidance provided by Finance and the Department of the Environment and Heritage.

ANAO Comment

3.63 The audit report has noted that the absence of individual agency targets was a significant shortcoming in the implementation of this program. This is because without individual targets, agencies cannot calculate what percentage of their fleet should be above 10 on the GVG. Agencies should have realistic and appropriate targets that also enable the Commonwealth as a whole to reduce vehicle energy intensity and subsequent greenhouse gasses. Consequently, guidance from DEH needs to be sufficient to enable agencies to contribute meaningfully to the achievement of government policy in this area.

Other initiatives to improve the environmental performance of the fleet

3.64 While there has been little progress in improving the GVG score of the Australian Government fleet as a whole, some individual agencies have attempted to reduce greenhouse emissions by offsetting their fleet emissions. One such offset program, adopted by five government agencies is the Greenfleet Australia program. Greenfleet is a not for profit organisation that plants trees to offset the greenhouse emissions produced by motor vehicles. Greenfleet has both individual and corporate fleets as sponsors. The corporate fleet offsets the emissions of an organisation's fleet at a cost of approximately \$40 per car per year. Five Australian Government agencies are green fleet members;

- Australian Maritime Safety Authority (42 vehicles);
- Airservices Australia (270 vehicles);
- Centrelink (189 vehicles);
- The Department of the Environment and Heritage (37 vehicles); and
- The Department of Family and Community Services (97 vehicles, both fleet and staff owned cars).

3.65 The Australian Government agency 'sign up' is small in comparison to other governments in Australia. The Queensland Government (12 600 vehicles) and the ACT Government (1 114 vehicles) have signed up their entire fleets

and the Victorian Government has decided to offset approximately 4 000 vehicles in their fleet. Leaseplan Australia is also a member and is the corporate sponsor of Greenfleet Australia.

3.66 If agencies and entities were to fully subscribe all leased vehicles to the Greenfleet program (7 311 vehicles), it would cost annually approximately \$292 000 and would abate approximately 31 473 tonnes of CO₂. This is approximately \$9 per tonne of greenhouse gas. This cost of abatement, is not an excessive cost option and is more cost effective than a number of current greenhouse gas abatement projects reported in ANAO report No 34, 2003–04; The Administration of Major Programs in the (then) Australian Greenhouse Office.

3.67 Other emissions offset programs, such as the BP Global Choice, are also available for agencies to consider joining. DEH has advised that they have recently made the decision to take up this latter option where it is practicable. The BP Global Choice program can abate emissions at around \$5.70 per tonne of CO₂-e. While such approaches do not provide any incentive to encourage low emissions technologies in Australian passenger vehicles, the ANAO considers that it represents one method by which individual agencies can at least abate carbon dioxide emissions – especially for agencies with large fleets. For smaller agencies, this approach would have less impact overall and consequently, the relative merits of an offset program may be less apparent, and would need to be considered by agencies in the broader value for money context.

Recommendation No. 8

3.68 In order to improve the environmental performance of the Australian Government fleet, the ANAO recommends that FMA agencies and CAC entities (where they have not already done so), consider, where practicable and consistent with current Government policy, options to reduce greenhouse gas emissions.

Department of the Environment and Heritage response

3.69 Agreed. The Department supports this recommendation, noting that greenhouse neutral fuels and verified offsets are available from Greenhouse Friendly approved abatement projects (part of the Greenhouse Challenge Plus Programme), as well as through other providers.

Agencies' response

3.70 A further 42 agencies and entities agreed with or expressed support for this recommendation. However, two of these agencies responded with qualifications. The CSIRO responded that, 'the real gains in emissions reductions will come from government pressure on local manufacturers to improve the GVG score of their locally manufacture vehicles'. The Department of Health and Ageing stated that it is 'currently examining emissions offsets options and may consider requiring fleet managers who opt for vehicles with poor GVG ratings to subscribe to an offset program. This approach more firmly links the government's strategy for greener vehicles with reducing greenhouse emissions'.

4. Water Conservation and Waste Minimisation

This chapter examines the performance of FMA Act agencies and CAC entities in water conservation and waste minimisation/management. Key areas discussed are the water efficiency measures taken, waste management policies and practices and the management of waste from construction, demolition and building refurbishments.

Water Efficiency

4.1 The supply of fresh water in Australia continues to be an important policy issue for all Australian Governments whether state, territory or federal. With water restrictions in place throughout much of Australia, Government agencies should be aware of their water consumption and the need for conservation measures. While there is currently no policy requirement for efforts in this area, it is clearly an area where agencies can potentially lead by example to reduce consumption and lower their costs and impact on the environment. This would have particular relevance to the objectives of the Natural Resource Management Ministerial Council which noted that; ‘...our striving for improved living standards has placed unprecedented pressures on water resources and water quality. These pressures are felt on every part of the water cycle, and can affect the amount of water harvested from our catchments, the quality of the water we drink, and the health of our oceans and rivers.’⁴⁹ Significantly for the Australian Public Service, the commercial sector accounts for between 10-20 per cent of total water demand in an urban water supply system.⁵⁰

4.2 Research based on operational buildings has demonstrated that significant water savings can be achieved through the improved design of office buildings. The Institute of Sustainable Futures, (University of Technology Sydney) found that:

...reductions of up to approximately 80 per cent of scheme water demand and 90 per cent of sewage discharge can be achieved in a sustainable commercial building compared to a conventional building, through the integration of innovative water efficiency measures, rainfall capture and use, treated effluent reuse and evapotranspiration through roof gardens. A commercial building

⁴⁹ The National Water Quality Management Strategy is a joint initiative, which has been developed since 1993 by the Australian Government in cooperation with state and territory governments currently under the [Natural Resource Management Ministerial Council](#). The Strategies aim is ‘To protect and enhance the quality of water resources while maintaining economic and social development’.

⁵⁰ Sustainable Water Management in Commercial Office Buildings; (2003) V. Chanan, et al; Institute for Sustainable Futures; University of Technology Sydney

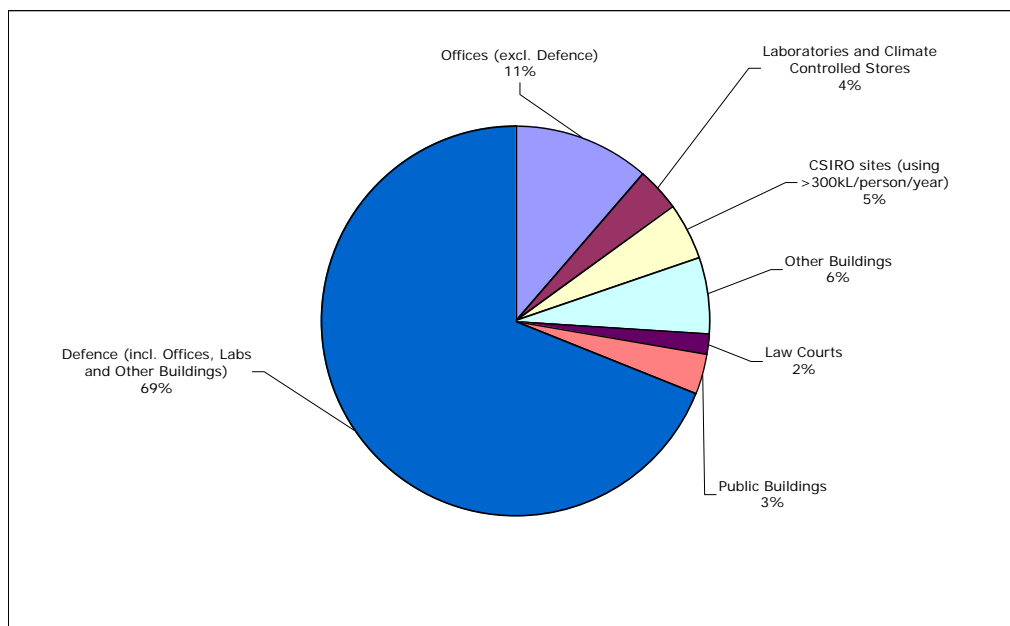
can be functionally efficient and at the same time provide enhanced amenity...⁵¹

4.3 Water consumption can be significantly reduced through introducing water efficient fixtures such as in dual flush toilets, waterless urinals, low flow taps and showerheads and other systems such as cooling towers, reuse systems and rainwater capture and treatment systems.⁵² Sydney Water has indicated that water savings can also translate into significant financial savings. Replacing an incorrectly set float value on a cooling tower at a cost of \$60 saved one Sydney Club \$21 200 per annum and reduced water consumption by 28 500 litres per day.⁵³

4.4 Unpublished research within DEH indicates that the estimated water use of Commonwealth agencies is approximately 19 100 ML/year. This is outlined in figure 4.1 below. Water use in Defence is even more significant than in the case of energy as a proportion of total use.

Figure 4.1

Estimated water use by Commonwealth agencies (2004)



Source: Institute for Sustainable Futures; University of Technology, Sydney July 2004

⁵¹ *ibid*; (2003) V. Chanan, et al; Institute for Sustainable Futures; University of Technology Sydney.

⁵² *ibid*; (2003) V. Chanan, et al; Institute for Sustainable Futures; University of Technology Sydney.

⁵³ Sydney Water; (2005) Water Conservation Best Practice Guidelines for Clubs. Page 13

4.5 The report estimated efficiency savings of between 4 296-7 405 ML/year could be achieved. To achieve these savings, an estimated capital expenditure of between \$8.2 million and \$14.6 million would be required. The potential water savings identified in the study were estimated at 4 296 ML/per annum and total cost savings (including energy) at approximately \$5.28 million. These savings would be shared between tenants and building owners. A pay back period of 4.5 years was identified for the water savings alone. When including the energy used in hot water generation, the payback period could be as low as 1.5 years.

4.6 In considering the savings that could be realised, the ANAO examined the actual practices provided by respondents from the ANAO survey as well as current good practice in commercial buildings. Table 4.1 outlines some of the key initiatives undertaken by agencies.

Table 4.1

Actions taken by agencies to minimise water use in Australian Government owned or leased office buildings

Types of Initiatives	Number of agencies that have taken these initiatives	Percentage of respondents
Flow reduction measures	21	29.6
Leak detection programs	25	35.2
Alternative water supply sources (eg rainwater tanks)	6	8.5
Water metering to measure actual water use by your agency	20	28.2
Water efficient dishwashers	42	59.2
Dual flush toilets	47	66.2
Grey or other water treatment system	5	7
Other steps	20	28.2
No response	10	14.1
Total respondents	71	100

Source: ANAO Green Office Procurement Survey

4.7 Some of the 'other steps' discussed in table 4.1 included important measures such as fittings to reduce water consumption and metering to measure water use. The Department of Industry, Tourism and Resources indicated they had installed water-free urinals, AAA rated fittings and sensor taps. Waterless urinals in particular can be very cost effective. A study by the University of California, Los Angeles, found that from three case studies in typical educational applications, internal rates of return (IRR) for replacement

ranged from 36 per cent to 61 per cent annually, with simple payback periods for the three applications ranging from 1.97 to 2.67 years. Varying student densities caused the differences in IRR and payback.⁵⁴ AAA-rated appliances in kitchen areas have a payback period of less than two years while AAA-rated flow-restricted showerheads and taps have a 6-12 month payback period.⁵⁵

4.8 Defence has developed an agency wide water policy and is at an early stage of considering the implementation of better practice water initiatives. The policy provides a sound framework for better managing water resources in the Department. Australian Antarctic Division (AAD) and Centrelink initiatives highlighted their efforts to reduce water consumption through measures such as native garden landscaping and identifying and fixing leaks. AAD indicated they have reduced water consumption from 25 ML per year to 6 ML/year. Centrelink indicated they had reduced consumption by 46 per cent in 2003–04 at the Tuggeranong Office Park complex.

4.9 CSIRO indicated that local water meters are installed on each major site and the organisation now has two years worth of data. In addition, water meters are being installed at North Ryde under the Sydney Water 'Every Drop Counts' program. Water use measurement is one of the key barriers to managing water use. Consequently, metering arrangements improve the capacity of agencies to manage water use and introduce cost effective water conservation measures. Reporting on water use, as is currently done for energy use would also provide an additional mechanism for agencies to benchmark their own performance. This is the approach being adopted in Victoria through the report of the Commissioner for Environmental Sustainability. The 2004 inaugural report highlighted the importance of measuring water use.

4.10 Overall, the results of the ANAO survey demonstrate examples of good practice across some agencies. However, if these good practices were adopted more widely, there is a high probability that water and financial savings will be realised. It is not possible to precisely comment on the level of potential savings but it would be reasonable to assume that 2 300 ML/per annum could be used as a target for initial savings. If achieved, this would have the added bonus of providing recurrent financial savings of some \$5.28 million each year.

⁵⁴ UCLA Waterfree Urinal Study; January 2003;

⁵⁵ Port of Brisbane Corporation; 2003; Sustainable Development Guidelines. page 4

Recommendation No. 9

4.11 In order to improve the quality and consistency of more sustainable water management practices, the ANAO *recommends* that:

- (a) the Department of the Environment and Heritage provide better practice guidance to agencies and entities on the costs, benefits and indicative payback periods from the adoption of water conservation practices; and
- (b) FMA agencies and CAC entities (where they have not already done so), consider appropriate targets and cost effective measures to reduce water consumption.

Department of the Environment and Heritage response

4.12 Agreed. The Department supports this recommendation and has developed new guidance on water efficiency for agencies that will be released in 2005.

Agencies' response

4.13 A further 42 agencies and entities agreed or expressed support for this recommendation. The Australian Electoral Commission responded with qualification, stating that 'water reductions measures have been implemented already by the AEC. However, in the case of West Block Offices and other sites around the country, it would be extremely difficult to measure the effectiveness of such measures due to the number of multiple tenancies with only a single meter'.

Building and refurbishment waste

4.14 Office refurbishments and fit-outs can produce large amounts of solid waste to landfill. Using recyclable or recycled materials minimises the waste stream from the replacement of old fixtures and materials. At the same time recycling can reduce energy use as there is substantial 'embodied' energy in materials such as metals, glass, concrete and masonry.⁵⁶ Construction and demolition of buildings in Australia contributes 30-40 per cent of the waste to landfill. This has been estimated at about eight million tonnes nationwide.⁵⁷

⁵⁶ Embodied energy is the energy consumed by all of the processes associated with the production of a building, from the acquisition of natural resources to product delivery. This includes the mining and manufacturing of materials and equipment, the transport of the materials and the administrative functions. The embodied energy in the existing building stock in Australia is equivalent to about 10 years of the total energy consumption for the entire nation. The embodied energy of building materials can vary enormously depending on the type of material, the type of processing used and transport. While concrete can have about two gigajoules per tonne of embodied energy, aluminium can be hundreds of gigajoules per tonne.

⁵⁷ Australian Bureau of Statistics; 2003 AusStats: Special Article – Construction and the Environment

While there is no policy or legislative requirements for agencies to recycle building materials or to use recycled materials, DEH has been working with industry to improve information, training, tools and incentives for better practice. For example, the Department, in partnership with CSIRO, the Inner Sydney Waste Board, the South Australian EPA, and EcoRecycle Victoria developed a national guide for the use of recycled concrete and masonry materials in non-structural applications. Given the shortages of suitable landfill sites in Australia, this was a timely initiative.

4.15 Whole of life cycle assessments can also provide guidance for agencies in making cost effective decisions on refurbishments and fit-out options. Whole of life cycle considerations are integral to the current procurement guidelines.

4.16 From the ANAO survey of 71 respondents, 42 had conducted refurbishments in the last 12 months. The total number of refurbishments was 268 involving 276 351.5 square meters at an average size of 1 031 square meters. Only three respondents (7.1 per cent) had an estimate on the amount of waste going to landfill from the refurbishments. However, a higher proportion, 13 respondents (31 per cent) had provisions in their contracts for minimizing and/or recycling the waste generated from the refurbishments. Table 4.2 outlines some of provisions adopted by respondents in their contracts.

Table 4.2

Provisions in contracts and tenders for materials used for new office fit-outs

Types of Initiatives	Number of agencies that have taken these initiatives	Percentage of respondents
Use of recycled materials	13	31
Use of recyclable construction materials	9	21
Use of natural materials	10	24
Preference for lower embodied energy materials	9	21
The exclusion or limitation of toxic materials	19	45
Other	5	12
No response	17	41
Total responses	42	100

Source: ANAO Green office Procurement Audit

4.17 From the follow up work to the survey, Defence was found to have conducted one of the first major building recycling initiatives. This occurred in 1999. In that year, contractors and subcontractors to the Department of Defence began the demolition of nine buildings in the Russell Offices complex. The demolition work was conducted within the framework of an environmental management plan. Initially the plan was to divert fifty per cent of all waste generated away from landfill into reuse or recycling initiatives. However, the subcontractors increased the target to some 98 per cent. A limitation on the volume of material for recycling was the relatively small amounts of asbestos, Polychlorinated Biphenyls (PCBs) and other hazardous materials.

4.18 To further promote recycling, all sub-contracts required packaging materials used in delivering goods were to be reused or disposed of in recycling operations. Where possible, delivered goods were not packaged and plaster sheets were correctly sized to save cutting. The contractors estimated that approximately 22.5 tonnes of materials were saved from going to landfill by these means. There was also extensive reuse of existing fit-out materials, loose furniture, demountable partitions, workstations and screens, tables etc that reduced waste to landfill and also saved Defence financially in the total refurbishment although no total estimate is available. In addition some 33 tonnes of materials such as plasterboard, light fittings, electrical cabling and ceiling tiles were recycled. A description of the total materials recycled is outlined in table 4.3 as follows.

Table 4.3

Materials recycled from the Russell Office Refurbishment

Items/materials recycled	Tonnes Recycled
Concrete	180,000
Steel	200,000
Glass	16
Plasterboard	180
Timber	160
Carpet	50
Vinyl	15
Aluminium	78
Roofing	45
Pipes	54
Cables	10
Recycled Plant and equipment	73
Total	380,681

Source: Department of Defence and associated private contractor

4.19 The contractor estimated that the approach involved approximately two per cent additional costs on standard demolition—although there were substantial (unquantified) overall savings because of the reuse of fittings. The ANAO considers that this example provides a good sustainability model for progressing major refurbishments in the Australian Government. A similar approach was adopted in the case of the demolition of the Department of Immigration, Multicultural and Indigenous Affairs building at Belconnen, in the ACT. In this case the agency indicated that around 95 per cent of the old building was recycled. Both examples indicate that the recycling rate is consistent with better practice industry standards in Australia. For example, in Victoria, the Government has set a recovery rate of 80 per cent (by weight) of construction and demolition waste for reuse and recycling by 2014 with an interim target of 65 per cent for 2008–09. In 2002–03 a 57 per cent recovery rate was achieved across the state although recovery rates of over 90 per cent were achieved on some sites.⁵⁸

4.20 In other major sites being refurbished for agencies, there was no substantial awareness of recycling of building materials. For example, the Department of Employment and Workplace Relations had conducted 15 refurbishments covering 41,000 metres². Their survey response indicated that the level of recycling was unknown.

4.21 In smaller scale refurbishments there was also positive examples provided by agencies. The AFP commented that they use maintenance free or low maintenance materials and that recycled building materials were used extensively in the construction of AFP Majura Training Village. DEST indicated that in recent national office refurbishments, the existing workstations were ‘cut down into new desktops’. Geoscience Australia office commented that their ‘glazed walls are modular and designed for reuse’.

4.22 The ANAO survey illustrates some of the good practices being implemented by a small number of agencies in terms of reusing materials, reducing the waste stream and lowering cost overheads. This has particular relevance within the context of whole of life cycle assessments. Agencies do need to give more explicit consideration in procurement to whole of life cycle assessments for office refurbishments. From the ANAO survey, only 12 agencies indicated that they conducted whole of life cycle costing assessment as a standard procedure when entering into contracts for office refurbishments. These agencies were seeking leasing arrangements that were more cost effective and ‘environmentally friendly’ over the longer term.

⁵⁸ Victorian Government, (August 2005) Towards Zero Waste in Victoria (www.ecorecycle.vic.gov.au)

4.23 For example, the Australian Crime Commission commented that they had adopted flexible, easily movable partitioning to reduce the cost and increase the efficiency of office or section allocations in future years. The Australian Institute of Health and Welfare commented that in the decision taken on refurbishment, lifetime operating and maintenance costs were considered. Disposal costs and residual values will be taken into account in deciding on whether to take up and renew the lease in the future. The Australian Taxation Office highlighted that their furniture contract specifically provided for whole of life cycle costing. The Health Insurance Commission commented on their procurement of recyclable carpet. These examples highlight the range of good practices across a small number of agencies and the scope for their broader consideration and adoption (as appropriate) across all FMA Act agencies and CAC Act Entities.

Recommendation No. 10

4.24 In order to improve sustainable practices in office refurbishments or fit-outs, the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so):

- (a) ensure that whole of life cycle assessments for building construction, office refurbishments and fit-outs explicitly include environmental impacts with the aim of achieving reductions in waste to landfill and improving value for money over the longer term; and
- (b) consider measuring and reporting on the environmental management of major refurbishments as part of reporting on sustainability in their annual report.

Agencies' response

4.25 41 agencies and entities agreed with or expressed support for this recommendation, however one agency qualified their response. The Department of the Prime Minister and Cabinet indicated that this recommendation was agreed in circumstances 'where it is possible and practical to incorporate such assessments into the early building constructions and fit out planning'.

4.26 The Department of Defence and the Department of Health and Ageing both disagreed with recommendation 10(b). Both departments commented further guidance was required to enable them to measure and report on environmental management for major refurbishments.

Waste management

4.27 Action to reduce waste, either by encouraging material efficiency, reducing the generation of waste, or enabling the recovery and reuse of discarded material is a critical element of sustainable development. The Australian Government has no specific policy to commitment to reduce waste to landfill. This is because waste management is largely a State, Territory or local government responsibility. However, Federal and State Environment Ministers have agreed to a new National Packaging Covenant (NPC) in July 2005.⁵⁹ Ministers, on behalf of their governments, acknowledged the product stewardship principle in the NPC and committed to applying the principles of the covenant in their own operations.

Waste management services

4.28 Waste management is an operational office cost. Waste management can include cleaning services, waste disposal, secure document disposal, commingled recycling and green waste recycling. From the ANAO survey, respondents in total spend at least \$8 million annually on waste management. The survey indicated that, 65 per cent of agencies were able to report on their waste management costs. The median cost of office waste management was \$43.50 per person in 2003–04. The reported range however, was high which reflects the methodological differences in the calculation of waste costs⁶⁰. For many respondents, there was little information available on their waste costs at all.

4.29 Nevertheless, all respondents stated that they recycled their paper waste. However, agencies recycle very little of their commingled and green waste. Table 4.4 illustrates the number of respondents who recycle various waste products.

⁵⁹ As discussed in paragraph 4.27 the Australian Government, as a signatory to the National Packaging Covenant (NPC), has agreed to promote limiting of packaging in the products it procures and produces.

⁶⁰ Agencies made different calculations for the total waste costs, some agencies included total cleaning costs whilst some only included waste pick-up costs.

Table 4.4**Recycling services provided by agencies**

Waste type	Number of Respondents	Percentage
Organic waste	20	20.2
Paper waste	71	100.0
Metal waste	39	54.9
Plastic waste	41	57.7
Fluorescent tubes	31	43.7
Toner cartridges	69	97.2
Other ⁶¹	15	21.1
Total respondents	71	100.0

Source: ANAO Green office Procurement Audit

4.30 For large FMA agencies or CAC entities, the responses indicate that the recycling may apply to one or two sites, rather than the whole organisation—particularly for the recycling of plastic or metal waste. However, the table above illustrates that apart from the strong response for paper and toner cartridges, the majority of waste products are not recycled in FMA Act agencies or CAC Act entities. Waste audits can assist agencies in identifying and recycling more of their waste and are discussed below in case study 3

⁶¹ 16 agencies indicated that they have a responsibility to manage toxic waste

Case study 3—Waste audits and waste recycling initiatives

Waste audits identify the types and amounts of waste produced and potential solutions to minimising waste. A number of agencies have undertaken waste audits for office sites. Three good examples were the Department of Communications, Information Technology and the Arts (DCITA) waste audit of the Burns Centre ACT, the Australian Broadcasting Corporation waste audit of the Ultimo Building in Sydney and the Department of Family and Community Services (FACS) waste audit of Juliana House.

The DCITA waste audit was performed as part of a more general environmental impact audit on the Burns Centre. The waste audit identified a number of areas for improvement including better capture of recyclables from the waste stream and better signage and information for staff. The DCITA waste audit was produced to assist in developing an environmental management system. The waste audit of the ABC Ultimo Building was a more comprehensive examination of the waste management of the building. In addition to examining the amounts of waste produced and signage and practices in the office, the waste audit examined the waste removal practices.

The FACS waste audit of Juliana House in the ACT led to a number of new recycling practices, first tested on a single floor and then applied to the whole building. The FACS waste audit improved the amount of paper recycling from 85 per cent to 94 per cent and co-mingled recycling from 2 per cent to 85 per cent.

The Department of Health and Ageing (Health) has also taken steps to improve its recycling. Health negotiated with its waste services provider to introduce commingled waste bins and collection at **no cost** to the organisation. The waste company would collect and replace bins weekly. Health estimates that an additional 15 per cent of commingled waste has been removed from the waste stream from this project.

ANAO Comment

Waste audits are important tools for agencies to identify understand and measure their waste streams. Waste audits do not have to audit the entire organisation; they can select a representative office site and from the findings develop an organisation wide policy on waste management. The Health example is also significant; it showed that good waste management practices can be achieved at **no cost** to a large organisation. While smaller agencies would not have the economies of scale to achieve this outcome by themselves, there is scope for group waste management contracts to be set up to achieve these economies of scale.

Packaging

4.31 The Australian Government, as a signatory to the NPC, has agreed to promote limiting of packaging in the products it procures and produces. In July 2005, Federal, State and Territory Ministers agreed to increase the amount of post consumer packaging recycled from its current rate of 48 per cent (2003 baseline data) to 65 per cent by 2010.⁶² In the ANAO survey, respondents were asked what actions they were taking to promote the NPC. Only 16 of the 71 respondents could specify any actions being undertaken. The majority of respondents could not answer this question, suggesting that very little is being done across the Commonwealth to reduce packaging waste.

⁶² The National Packaging Covenant, A Commitment to the Sustainable Manufacture, Use and Recovery of Packaging; 15 July 2005 to 30 June 2010. National Packaging Covenant Council,

4.32 There are no better practice guidelines or whole of government targets for government agencies in relation to packaging. This may help explain why so few agencies could answer this question. Some positive responses were noted which provide illustrations for wider adoption in other agencies. For example, Centrelink commented that:

Better waste and emissions management was a key element of Centrelink's 2005/06 Environmental Management System. Centrelink said that they will be undertaking a range of activities to raise the awareness of staff engaged in day-to-day procurement about ways to reduce packaging when purchasing goods and how to improve waste management. With respect to contracts for major purchases, for example the purchase of personal computers, Centrelink has included compliance with the NPC in tender specifications.

4.33 Finance has commented that:

Contracts with major equipment suppliers (IT Hardware and IT Peripherals) all include the requirement for the equipment vendor to collect packaging material for recycling purposes. Where not collected by vendors, recyclable packaging materials (particularly cardboard) are separated for appropriate recycling.

4.34 These practices suggest that as a minimum, agencies should consider inserting similar clauses in purchasing contracts as well as improving staff awareness of the Government's commitment to the NPC and its provisions.

Recommendation No. 11

4.35 In order to improve the quality and consistency of sustainable practices, the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so), consider the introduction of cost effective:

- (a) commingled and organic waste recycling schemes for office waste management; and
- (b) clauses in purchasing contracts to minimise packaging waste.

Agencies' response

4.36 43 agencies and entities agreed with or expressed support for this recommendation. The Australian Electoral Commission agreed with qualification stating that 'the AEC would need to consider the values for money considerations on insisting that potential tenderers minimise packaging waste'.

Cleaning Services

4.37 The ANAO survey questioned respondents as to whether they 'promote the use of low irritant, biodegradable, low phosphate cleaning chemicals in the cleaning contracts'. While there are no policy requirements,

the question was asked with particular consideration of the impact of chemicals entering inland waterways (from Canberra) and estuaries. There are also legal and occupational, health and safety issues if employees or contractors use chemicals that may have health or safety concerns. From the ANAO survey, 37 respondents (52 per cent) said they promote the use of low irritant, biodegradable, low phosphate cleaning chemicals in cleaning contracts. While most respondents were not specific about how they implemented this measure, some of the positive examples noted are set out as follows (Table 4.5).

Table 4.5

Cleaning Measures in selected agencies

Respondent	Cleaning measures adopted
Productivity Commission	Cleaning contracts contain provisions that require contractors to provide material data sheets that detail the chemical components of products used and declarations that the products are safe.
Foreign Affairs and Trade	The Department's cleaning contract for the R G Casey Building specifies that all cleaning materials be approved environmentally friendly products.
Health & Ageing	The Department's cleaning contractors use water based, low irritant products. The Department is also in the process of going out to tender for Cleaning and Waste Management Services. It has been specified in the requirements, that low irritant, biodegradable, low phosphate cleaning chemicals be used.

Source: ANAO Survey of Green Office Procurement

4.38 These practices provide illustrations for FMA Act agencies and CAC Act entities to follow when considering future cleaning contracts.

5. Whole of Government Energy Reporting

This chapter examines the Australian Government's performance against energy targets and the reporting of aggregate Australian Government energy consumption.

Introduction

5.1 In contrast to water and waste management, the Australian Government has had a long-standing policy to improve energy efficiency, and consequently, reduce the environmental impact of Government operations, and by so doing, lead by example.⁶³

Performance against energy targets

5.2 Under Australian Government policy, FMA Act agencies and CAC Act entities are expected to meet on a property portfolio basis, energy consumption targets in terms of:

- 10 000 Mega joules per person per annum for office tenant light and power;
- 500 Mega joules per metre² per annum for office central services; and
- 2.5 million Giga joules for Defence Establishments.⁶⁴

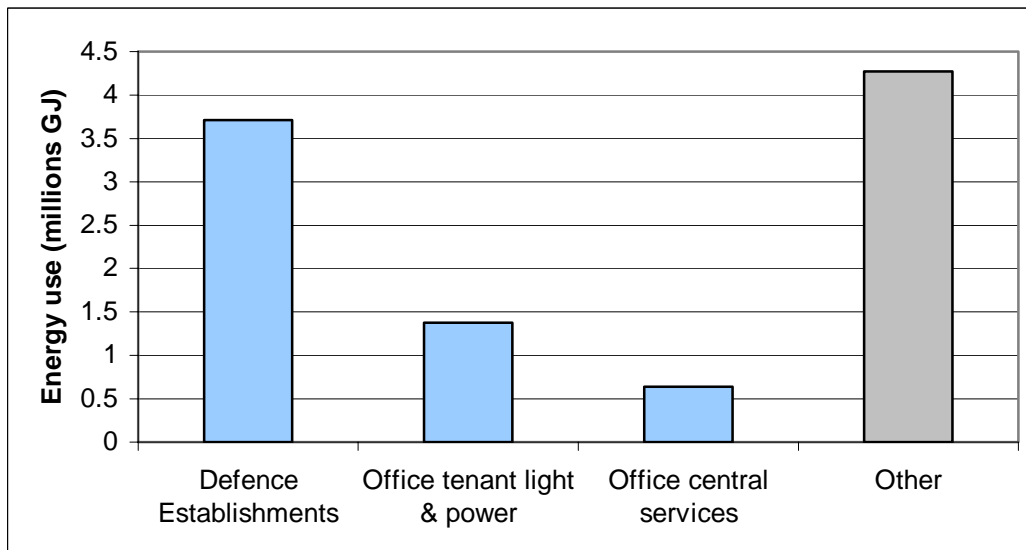
5.3 These targets form an important greenhouse gas abatement measure introduced as part of Measures for Improving Energy Efficiency in Australian Government Operations announced by the Prime Minister in 1997. The targets were designed to be achieved by 2002–03 but have continued on pending further consideration of new targets. DEH has advised that the review of targets is underway and that a proposal for consideration by Ministers is likely in the near future. The significance of the three targets is that they covered 57.3 per cent of total energy consumption in 2003–04. This is illustrated in the following, Figure 5.1.

⁶³ Department of the Environment & Heritage; Energy Use in the Australian Government's Operations; 2003–04 page 455.

⁶⁴ (ibid; pages 466-467)

Figure 5.1

Australian Government energy consumption by primary sector (2003–04)



Source: Energy use in Australian Government operations (2003–04)

5.4 During the course of the audit, Defence negotiated an electricity supply contract for Defence sites in NSW and the ACT (from 1 July 2005) along with various Australian Government Departments, FMA Act agencies and CAC Act entities (from 1 September 2005). This contract built on a previous arrangement that only applied to ACT energy users, which was negotiated and managed by the (then) Australian Greenhouse Office.⁶⁵ The contract is particularly significant for small agencies that now have access to bulk energy prices that they would otherwise not be able to obtain.

5.5 The value of the contract is estimated at over \$80 million over two years. The contract specifies that at least eight per cent of the electricity be from renewable sources; otherwise known as ‘green energy’. Participants are given the option to purchase additional green power if they choose. Defence has estimated that the overall effect will be an increase of 150 per cent in the consumption of green energy by the agencies in the contract. This will more than offset the 19.3 per cent decline in green energy consumption reported by FMA Act agencies and CAC Act entities from 2002–03 to 2003–04.

5.6 It must be noted though, that purchasing green power comes at an extra cost. For the NSW and ACT sites, this will be an additional 5 per cent on

⁶⁵ Now part of the Department of the Environment and Heritage since the change in administrative orders in 2004–05.

top of the standard electricity rate. While this will have a positive impact in reducing greenhouse gas emissions, it also suggests that some participants will need to give more attention to energy conservation measures to reduce or at least stabilise their overhead costs in this area.

Office Tenant Light and Power Target

5.7 Office Tenant Light and Power is defined as energy used for tenant operations in buildings whose primary function is office space.⁶⁶ It includes energy used in tenancy lighting, office equipment, supplementary air conditioners, computer server rooms and boiling water units. Tenant light and power accounts for 13.8 per cent of total energy consumption in Australian Government operations (including CAC Act entities) and nearly 19 per cent of greenhouse gas emissions (that is 289 000 tonnes of carbon dioxide in 2003–04). The mandatory target for agencies is less than 10 000 MJ/person per annum.⁶⁷

5.8 From the 101 agencies outlined in the latest report on *Energy Use in the Australian Government Operations* (2003–04), 59 agencies (some 58 per cent) achieved the target of 10 000 Mega joules per person per annum for office, tenant, light and power.⁶⁸ The low energy-using agencies (such as DEH at 5 500 MJ/person and the Department of Immigration and Multicultural and indigenous Affairs at 5 759 MJ/person) occupied recently renovated or new buildings. Particular attention had also been given by agencies to developing energy efficient buildings—even within the constraints of heritage listing as in the case of the John Gorton Building (occupied by DEH and Finance).

5.9 However, from the 2003–04 report on *Energy Use in Australian Government Operations*, a few high-energy using bodies (such as Supervising Scientist Division 29 550 MJ/person and Geoscience Australia 26 544 MJ/person) tended to have limited energy savings potential because they were specialist agencies with high-energy using scientific functions, rather than pure office functions. Some agencies with more standard office accommodation reported that increasing the size of accommodation per person and increasing hours of operation also significantly increased energy intensity.⁶⁹ This has been an issue for the Attorney General's Department in particular.

5.10 Nevertheless, over the last five years the number of agencies achieving the target has improved from 35.4 per cent to 58.4 per cent as outlined in table 5.1 as follows. The average performance for all Australian Government agencies and entities has also improved considerably over the last five years.

⁶⁶ *Energy Use in the Australian Government Operations* (2003–04) Page 29

⁶⁷ *Energy Use in the Australian Government Operations* (2003–04) Pages 24, 25 & 32

⁶⁸ Calculated from Annex C - *Energy Use in the Australian Government Operations* (2003–04) Page 424

⁶⁹ *ibid*; pp 29-30

The ANAO has used the last five years data rather than the seven years because of the higher probability of errors in the first two years as agencies relied on estimates and extrapolations from existing data.

Table 5.1

Agencies Achieving Tenant Light & Power Target (1999–00 to 2003–04)

Year	Number of Agencies Included	Number of Agencies Achieving the Target	Percentage of agencies	Average energy use per person (MJ)
1999–00	99	35	35.4	11 758
2000–01	100	40	40.0	10 848
2001–02	100	52	52.0	10 415
2002–03	99	58	58.6	8 980
2003–04	101	59	58.4	8 643

Source: Energy Use in Australian Government Operations 1999–00 to 2003–04.

5.11 Further improving the number of agencies achieving the 10 000 MJ per person target is achievable but would not produce significant savings overall. As noted in the Energy Use Report, an improvement of only 55 000 GJ or 4.8 per cent of current Tenant Light and Power consumption would be achieved if all agencies achieved 10 000 MJ/person.⁷⁰ However, if the Government adjusted the target to take account of advances in energy efficient office technology and lighting, (for example to 7 500 MJ/person) this would have a more substantive impact and move the Australian Government’s property portfolio from the 2.5 ABGR to 3.5 ABGR (current industry better practice for a portfolio)⁷¹. Based on the latest electricity contract this could reduce greenhouse emissions by some 40 000 tonnes and conservatively reduce costs for agencies by some \$1.7 million if all agencies achieved the target.

Office Central Services

5.12 Office central services covers energy use for services in office buildings common to all tenants. It includes building air conditioning, lifts, security and lobby lights, and domestic hot water.⁷² Office central services accounts for 6.4 per cent of total Australian Government energy consumption and 102 000 tonnes of carbon dioxide emissions in 2003–04. The mandatory target for agencies is set at 500 MJ/m²

⁷⁰ op cit. page 32

⁷¹ The NSW also has a policy to only lease buildings in Sydney that are 3.5 ABGR.

⁷² Energy Use in Australian Government Operations 2002–03 page 36

5.13 Of the 101 agencies that reported tenant light and power figures 32 also reported central services figures.⁷³ *Energy Use in the Australian Government Operations* (2003–04) stated that 23 agencies (72 per cent) achieved the 500 MJ/m² per annum for office central services in 2003–04. Over time there has not been an appreciable reduction in energy consumption in central services, see table 5.2 below. However inadequate measurement (particularly where agencies can not distinguish between energy consumption from tenant light and power and central services) makes drawing definitive conclusions difficult within this category.

Table 5.2

Agencies Achieving Office Central Services Target (1999–00 to 2003–04)

Year	Number of Agencies Included	Number of Agencies Achieving the Target	Percentage of agencies	Average energy use per person/m ²
1999–00	34	24	70.6	453
2000–01	34	21	61.8	459
2001–02	33	22	66.7	482
2002–03	30	19	63.3	480
2003–04	32	23	71.9	446

Source: Energy Use in Australian Government Operations 1999–00 to 2003–04.

5.14 Nevertheless, from the data available, progress in reducing energy consumption in Australian Government agency central services has been marginal. There was a reported drop in central services from 1997–98 to 1999–00. A significant proportion of this decline can be attributed to the sale and lease back of buildings that occurred during this early period. As with tenant light and power, the last five years is more likely to provide a reasonable comparison of results. While recognising that Office Central Services is not a large source of energy consumption at 6.4 per cent of total consumption, this is nevertheless an area that agencies should give greater priority to in terms of reducing energy consumption over time. This would be enhanced through separately metering tenant light and power from central services.

Defence Establishments

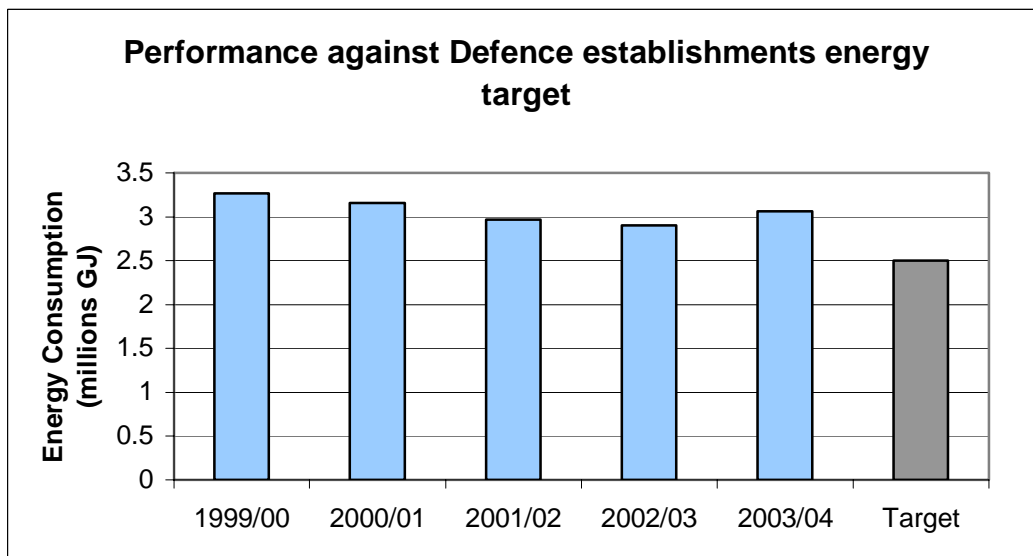
5.15 Defence Establishments covers all buildings and facilities within Defence bases. Energy consumption is significant as it accounted for 37.1 per cent of total Australian Government energy use in 2003–04 and some

⁷³ Only agencies paying for central services as part of their lease, report on energy use in this category.

668 000 tonnes of carbon dioxide emissions.⁷⁴ Reporting is on an aggregate basis as Defence bases, which may contain many different buildings of varying types, typically have only a single meter at the front gate. Defence Establishments have an energy target of 2.5 million Giga joules.⁷⁵ Performance against this target is set out in figure 5.2.

Figure 5.2

**Defence Establishments- performance against target
(1999–00 to 2003–04)**



Source: Energy use in Australian Government operations (2003–04)

5.16 While performance improved from 1999–00 to 2002–03, it deteriorated in 2003–04 by almost 6 per cent. Defence has indicated that there was a range of factors contributing to the energy increase, such as:

- improved data collection in 2003–04;
- the construction and operation of new buildings;
- the installation of high energy using equipment (such as radar systems, air-conditioning and additional security lighting);
- redevelopment of the Royal Australian Air Force Base Amberley (such as installing 400 split system air conditioners and new facilities);

⁷⁴ Based on tables 7 and 8; Energy Use in Australian Government Operations 2003–04; pages 18 and 20

⁷⁵ op cit; pages 466-467

- completion of a new squadron headquarters at RAAF base Williamtown; and
- an increase in the Defence workforce of some 2 500 personnel.

5.17 The ANAO recognises that increasing Defence requirements and deployment, increases in personnel and improvements or expansion to facilities in Defence Establishments are all inevitably going to impact on energy consumption. Consequently, it is not surprising that Defence has had difficulty in meeting their target and that energy use increased in 2003–04. However, there are still substantial energy conservation measures outstanding from the Defence Energy Efficiency Program (DEEP) of 2000 to 2002 that have yet to be implemented. Sub-metering arrangements have not been widely implemented despite the substantial benefits from identifying anomalies in energy use across establishments. In addition, the implementation of sub-metering would assist in distinguishing between direct Defence energy use on bases and the energy used by contractors. Current arrangements act as a disincentive to the implementation of effective energy management programs.

5.18 As noted by DEH, with ‘new metering technology and increasing competition between metering service providers, installations are becoming less costly’. However if cost was an issue, then energy performance contracting provides an opportunity to improve energy performance with no initial capital outlay. Clearly if there is an increase in Defence activity requiring more personnel and facilities in Defence Establishments, it would be highly desirable to offset the increase in energy use with appropriate energy conservation measures. This would have the added benefit of bringing Defence closer to their target. Estimated savings from achieving the target are approximately \$650 000 per annum along with 145 600 tonnes of CO₂ per annum.

Whole of Government Energy Initiatives and Reporting

5.19 As part of the policy ‘Measures for Improving Energy Efficiency in Commonwealth Operations’, agencies are required to report on energy consumption to their Ministers and forward summary reports of energy consumption, including key indicators to DEH (previously the Department of Industry, Science and Resources prior to 2002–03) by October each year. After formally submitting their data to DEH, agencies are provided with feedback and asked to confirm its accuracy.

5.20 The whole of government energy report requires agencies to report their energy use as one of twelve end use categories such as tenant light and power, defence establishments, defence operations, public buildings, passenger vehicles and other transport. The most recent report (2003–04) stated that the reductions in energy use ‘were due to energy efficiency management

initiatives'. A 15 per cent reduction in energy use was reported since 1997/98 and improvements in eight of the twelve categories.

5.21 DEH 'aggregates, summarises and analyses the data and produces a whole-of-government energy consumption report to be tabled in the Parliament before the end of December each year'. The policy states that 'reports...that are not submitted on time will be excluded from the whole-of-government energy report and the organisations concerned clearly identified in the report'.

5.22 To date, seven reports have been tabled from 1997–98 to 2003–04. With the exception of the 2003–04 report all were submitted to the Parliament and publicly released by December each year. The 2003–04 report was not released until June 2005. Some agencies were late with the supply of their data (for example, the Department of Defence did not provide their data to their own Minister until December 2004). In addition, there was some inter-agency discussion and debate as to why some increases in energy consumption had occurred. Nevertheless, the ANAO considers that agencies should be reminded of the timeframes in the policy and that every endeavour should be made to meet them in future reports. A six-month delay in the release of the report does seem excessive under the circumstances.

5.23 In terms of the quality of the report, the ANAO considers that the report provides a very useful and informative overview of the energy performance of Australian Government agencies. The report also enables agencies to benchmark their energy performance and continuously improve their energy efficiency. This can assist agencies to reduce energy consumption and greenhouse gas emissions and lower operating costs. The focus on energy intensity targets (that is, MJ per person for tenant light and power) rather than total consumption enables reasonable comparisons to be made across agencies of different sizes. Case studies illustrate how better performing agencies have achieved their results or what actions they have or are planning to undertake. The accuracy of the data has improved over time as more agencies have introduced better metering and measurement systems in their buildings. For example, the 1997–98 report states:

Because this is a first annual energy report in this format, and because the reporting requirements were not announced until well into the reporting year, the ability of many organisations to retrieve and analyse data was limited. As a result a proportion of the data is based on estimates derived either from formulae or from extrapolation of available data.

5.24 The limitation identified above, suggests that care is required when drawing conclusions and making comparisons between the early data and the more recent years – especially when examining reductions in total energy consumption. Given the limitations of the first two years data in the report the ANAO has concerns over the accuracy of the 15 per cent reduction in total

energy use. From ANAO analysis, approximately 44 per cent of the reduction in energy use occurred through the reclassification by Defence of energy from a reportable category to a non-reportable category.

5.25 Over the period 1997–98 to 2003–04, Defence reclassified the majority of fuels originally reported in the category ‘other transport’, into the categories ‘Defence operations’ and ‘passenger vehicles’. This was done to provide a more accurate representation of energy use within Defence. The ‘Defence operations’ category is not included in the aggregate energy reduction calculation. Consequently, these reclassifications accentuated the decline in total energy consumption (for the Australian Government) over time, as there were no retrospective adjustments made to earlier data.

5.26 The Defence energy consumption figures are very significant because of their relative size in proportion to total Australian Government energy use. From the publicly available figures, the reduction in total energy consumption (excluding Defence Operations) did not take into account approximately 637 280 GJ. This represents approximately 44 per cent of the decrease in total energy use in Australian Government operations from 1997–98 to 2003–04. The ANAO considers that the reported reductions in total energy use from 1997–98 to 2003–04 are actually 9 per cent.

5.27 Although the total energy use reductions are significantly less than reported there is evidence to suggest that Australian Government energy efficiently has still significantly improved. For example, over the last seven years, energy consumption in office tenant light and power has improved (that is declined) by 24.8 per cent. Total energy consumption in 2003–04 is likely to have been much higher if agencies had not taken the energy conservation initiatives they had. This is a positive energy efficiency achievement. Using floor space more efficiently was a key measure during this period. The floor space per person has declined from 27.7 square metres per person to 20.7. If the current operational climate (number of people, buildings used etc) had existed in 1997–98 the ANAO estimates that total energy consumption would have been approximately 9.7 million GJ, significantly higher than the actual 1997–98 figure of 9.1 million GJ⁷⁶. The ANAO has calculated that energy efficiency initiatives could account savings of up to 1.5 million GJ over the seven-year period.

5.28 A further point of clarification is that during the period 1997–98 to 1999–00 a significant number of government office buildings were sold and then leased back by agencies and the National Transmission Authority, a significant energy user, was sold. The result of these sales changed the calculation of energy use reported. This ‘operational change’ resulted in a

⁷⁶ These figures have been adjusted to exclude the reclassified Defence fuel data previously discussed.

reduction of approximately 630 000 GJ of energy and accounts for a significant proportion of the reduction in energy use over the first three years of the energy use reports. This change represents approximately 42 per cent of the estimated 1.5 million GJ energy efficiency savings. While asset sales can be legitimately claimed to be energy reductions reported by the Australian Government, it would be useful to include a caveat in future reports to avoid the misconception that these changes were energy efficiency measures.

5.29 The ANAO recognises that there are significant challenges in bringing together large quantities of energy data each year across the public service. Each agency is responsible for the integrity of its data and there is evidence in the reports that individual agencies have been improving the accuracy of their energy use reporting over time. However, large changes in operations (such as the reclassification of energy use from a reportable to a non-reportable category) can make a significant impact on total energy consumption and potentially skew estimates of savings. Unless data is adjusted and appropriate caveats included, comparisons made over time are likely to give misleading results. DEH has indicated that they consider that the energy intensity improvements made have been substantial. They will also be giving greater emphasis to energy intensity measures in future reports and include appropriate caveats and adjustments to comparative assessments.

Recommendation No. 12

5.30 In order to improve the quality and consistency of reporting on Energy Use in Australian Government Operations, the ANAO *recommends* that the Department of the Environment and Heritage focus reporting on changes in energy intensity in future reports and include appropriate caveats on any reported changes in total energy consumption.

Department of Environment and Heritage response

5.31 Agreed. These issues will be addressed in the next whole of government energy report.

6. Energy Efficiency Initiatives in Buildings and Facilities

This section examines the energy efficiency initiatives in buildings and facilities with a particular focus on Defence as a major energy consumer, broader compliance with government energy policies (in areas such as energy audits, energy plans, energy performance contracting) building ratings and performance standards as well as participation in the greenhouse challenge.

Introduction

6.1 Energy efficiency measures are an important policy focus for the Australian Government with a range of mandatory policy requirements as discussed in the last chapter. The importance of the commercial building sector to environmental performance is underscored by greenhouse gas emissions from commercial buildings that are projected to increase from 32 million tonnes of CO₂ per annum in 1990, to 63 million tonnes in 2010 under a business as usual scenario.

6.2 There is now a substantial body of evidence that agencies can achieve substantial cost savings and/or environmental benefits over time by focusing on improving energy efficiency or conservation in office buildings.⁷⁷ The environmental benefits can be further magnified by agencies switching to less greenhouse intensive energy sources such as green power.

Agency Energy Efficiency Initiatives

6.3 From the ANAO survey, 97 per cent of respondents have taken actions to increase the energy efficiency of their office spaces⁷⁸. Some of the common energy efficiency initiatives that agencies have performed are shown in table 6.1.

⁷⁷ Apart from the stated savings documented in the above report since 1997–98, there is substantial evidence from the NSW Department of Energy and Utilities & Sustainability, the Australian Building Greenhouse Rating web site www.abgr.com.au and the UK Department of the Environment, Energy Efficiency Office, Good Practice Guide 31. In this latter case, savings of between 5-25 per cent were found with little or no additional expenditure from energy monitoring and targeting.

⁷⁸ The survey questions were directed at all current office spaces occupied by agencies rather than particular timeframes.

Table 6.1**Energy initiatives in agencies**

Initiative	Percentage of Agencies	Percentage of Office Spaces
Energy plan or strategy	39	30.6
Energy audits	54	20
Energy efficient lighting with dimming high frequency ballasts	47	21
Upgrading of air-conditioning systems in the last 5 years to make them more energy efficient	49	9
Passive solar efficiency additions (eg window blinds or skylights)	72	32
Timer switches on heating/cooling/lighting	80	28
Sensor switches in rooms or on equipment	63	22
Other steps	32	14

Source: ANAO Survey of Green Office Procurement

6.4 However, as illustrated above, there was high a percentage of initiatives across agencies but this was not reflected in any depth across the range of total office spaces occupied by respondents. Only 20 per cent of office tenancies had been energy audited and only 21 per cent of office tenancies had energy efficient lighting installed.

6.5 When the ANAO survey results on actions undertaken are compared to actual energy performance over the five year period 1999–00 to 2003–04, those respondents with a systematic or planned approach to energy management and conservation achieved a far better result than respondents without such an approach. For example, respondents with energy plans achieved reductions in energy consumption of 20 per cent as opposed to the 9 per cent achieved by respondents without these plans. Respondents that had undertaken energy audits, in at least one office space, achieved a 19 per cent reduction in energy consumption as opposed to the 10 per cent achieved for those that did not. Considerable gains were found by respondents that introduced timer switches on heating and lighting (a 32 per cent reduction in energy use compared to 2 per cent) and in sensor switches (25 per cent reduction in energy use compared to a 7 per cent)⁷⁹.

⁷⁹ The energy savings identified from energy efficiency initiatives are not cumulative. They represent different break-ups of the same energy reduction data.

6.6 Surveyed agencies were also asked to outline the savings achieved from the energy efficiency initiatives they nominated. Some 54 per cent of respondents nominated that cost savings had been achieved from initiatives introduced in the last three years. However, when prompted to quantify the savings only 18 respondents (26 per cent) were able to report actual dollar savings. Additionally, the savings nominated by respondents were, in general, calculated on a total energy reduction basis (calculated on reductions in the total energy bill) rather than related to specific initiatives. Two examples of where savings were measured are illustrated in the following table 6.2.

Table 6.2

Energy savings in selected agencies

Agency	Saving (pa)	Basis of Calculation
Centrelink	\$43,917	This is a net saving ie approx \$43 917 reduction in lighting running costs each year saved through a delamping program at Tuggeranong Office Park - Centrelink's National Support Office. Other initiatives throughout the property network have been carried out on a local basis and an overall cost saving figure has not been calculated.
SBS	\$10,371	Measured energy consumption before and after installation of Illumalite lighting control system, engineering assessment of saving associated with improved lighting control for atrium and replacement of incandescent lamps in edit facilities with compact fluorescent lamps.

Source: ANAO Survey of Green Office Procurement

Defence Energy Initiatives

6.7 As discussed in the previous chapter, Defence uses a significant proportion of the energy consumed by the Australian Government. In 2003–04, Defence consumed approximately 45 per cent of all energy⁸⁰. As a result, any energy initiatives undertaken by Defence will significantly impact the energy use and subsequent greenhouse emissions of the commonwealth. The most recent project run by Defence to improve energy efficiency was the Defence Energy Efficiency Program (DEEP).

6.8 DEEP was introduced in 2000 with a budget of \$20 million to provide ‘a definitive reduction in energy consumption to achieve both immediate reduction targets and continuous improvement in energy efficiency over the longer term’. The program targeted 43 major energy-using sites. The evaluation of the program highlighted that the program identified 545 000 GJ in energy savings. Actual savings of 579 240 GJ were achieved over the three

⁸⁰ This does not include energy used in defence operations. When defence operations energy is included, defence consumes approximately 76 per cent of Australian Government energy.

years to 30 June 2003. Over the three-year program, \$18.45 million was spent with the project achieving 103 per cent of the project target. Some 800 technical energy conservation measures were implemented within a seven point framework that included a strengthened focus on policy and planning, leadership, awareness, performance measurement, investment, standards and supply. The payback period on the identified savings was approximately eight years.

6.9 An internal evaluation of DEEP found that the program 'provided a kick-start for a process of continuous improvements'. The program showed that 'energy management can achieve results without reducing operational capability or imposing a burden on staff'. However, the evaluation noted that 'if the program was to avoid becoming a failure like the previous 1990's efficiency program, senior management must maintain their commitment and guarantee the necessary resources are allocated'. The evaluation expressed concern over:

- the little ongoing focus on energy efficiency;
- regional energy services managers had insufficient budgets to maintain the gains made over the three years of the program let alone implement the many energy conservation measures still outstanding from the original energy management plan;
- an absence of new Commonwealth stretch targets;
- the loss of regional energy services managers in SA and Victoria; and
- the failure to install sub-metering and information management systems needed to calculate key performance indicators for benchmarking so essential to both report and drive performance.

6.10 These points are of particular relevance given the increase in energy consumption in Defence establishments in 2003-04.

6.11 Nevertheless, Defence has continued on with some high profile initiatives and ongoing discussions between Defence and DEH on sub-metering in Defence Establishments may assist in addressing this issue. The case study of the Defence's Russell Offices, below (Case Study 4), illustrates some of the energy efficiency initiatives that can be implemented. It also demonstrates the need to measure the actual savings achieved.

Case Study 4—Energy efficiency in Russell Offices, Defence Department

The Russell Offices Complex provides an office administrative environment for approximately 3,000 Department of Defence and Australian Defence Force personnel. Towards the end of 2004 the Department modified the Building Management System to tailor the provision of lighting and air conditioning to the operating requirements of work groups in the building. \$40 000 was invested in manual off-switches and reducing ventilation to the plant room. This enabled different work groups and branches to work different hours during the day. Rather than programming the building management system to provide lighting and air-conditioning throughout the entire building during standard hours, modifications to the BMS ensured that services were only provided to staff when they required them.

Summary of Proposed Rates of Return and Payback:

Initiative	Internal Rate of Return	Simple Payback (Years)
Reduction in lighting operating hours	>100%	0.9
Provide manual control of lighting	56%	1.9
Reduction in air conditioning run time	>100%	0.1
Remove outside air fans	>22%	4.8

Expected Outcomes:

Adjusting the time schedules for each of the buildings by 1 hour per day aimed to save approximately 150 800 kWh and \$10 566 per annum. Enabling the occupants to manually switch off the lighting in their areas at the end of the day, combined with an education program was estimated to conservatively save 30 minutes per day on the general lighting. This equated to approximately 75 400kWh and \$5283 per annum. Decommissioning the outside air fans was expected to reduce electricity consumption by 322 440 kWh per year at a saving of \$18 218 per annum. (Energetics, 2004).

Actual Outcomes:

The actual total energy savings were 145,000 kWh with cost savings of \$14 500. This was less than anticipated. However, these savings were achieved in only a 6-month time frame. The introduction of additional energy conservation measures is estimated by the Department to further improve the savings across the Russell Offices precinct. 'Conserving our Resources' posters have been recently distributed throughout the Russell Offices in an effort to further educate staff as to the benefits of reduced energy consumption in their offices.

ANAO Comment:

This example highlights the importance of agencies being aware of the potential discrepancies between estimated and actual savings and considering savings on a net basis, taking into account the initial capital costs of energy conservation measures. Experience from larger property portfolio companies in Australia suggests that energy conservation actions must be tightly managed and monitored if optimum results are to be realised.

Compliance with energy efficiency policies

6.12 *Measures for Improving Energy Efficiency in Commonwealth Operations* (2000) outlines a number of requirements aimed at improving agencies' energy efficiency. As stated in the previous chapter, the overall objective of the policy is: 'To improve energy efficiency, and consequently reduce the environmental impact of Government operations, and by so doing, lead the community by example'. Key government policy requirements examined through the audit were:

- all building space be energy audited within one year of occupancy and thereafter at intervals not exceeding five years. All cost effective energy savings measures were to be implemented;
- new building leases not include any provision permitting the recovery from the tenant of the cost of energy used by building central services during normal working hours; and
- minimum energy performance standards apply to new buildings (owned and leased).

6.13 In addition to the requirements for energy efficiency initiatives, Australian Government agencies were also encouraged to join the Greenhouse Challenge program, run by the DEH.

Energy audits

6.14 The Australian Government policy is that all building space must be energy audited within one year of occupancy and thereafter at intervals not exceeding five years. The audit quality must at least comply with the requirements of the relevant standard, or alternatively, the format of the audit may be put forward as a proposal from an energy performance contractor, a post occupancy evaluation or similar. All cost-effective energy saving measures identified in the audits must be implemented. Measures are considered cost effective if they have an internal rate of return of 15 per cent or better calculated over the estimated remaining period of occupancy, the life of the equipment involved or seven years, whichever is the lesser.⁸¹

6.15 From the ANAO survey, 38 respondents or 53.5 per cent had conducted an energy audit of their buildings. However, less than one in five office sites (406 sites or 20 per cent) had been energy audited. By far the majority of energy audits were conducted in just two respondents, Centrelink (180 sites) and the Australian Institute of Marine Science (117). These two agencies accounted for 73 per cent of all energy audits. However smaller respondents with a low

Source: ⁸¹ *Measures for Improving Energy Efficiency in Commonwealth Operations* (2000)

number of buildings or office sites such as Comsuper, the Treasury, the Department of Communications, Information Technology and the Arts, and Insolvency and Trustee Service Australia had all conducted energy audits on 100 per cent of their sites.

6.16 While energy audits involve an initial outlay, there is significant energy and cost saving potential flowing from their conduct. Table 6.3 below highlights the results from an audit at one site in one large agency.

Table 6.3

Summary of energy and cost savings identified in an energy audit

	Cost (\$)	Cost savings (\$pa)	Simple payback (years)	Energy savings (kWh pa)
Power factor correction	7 106	1 070	6.64	-
Lighting option 1: 90 fixed dimming units	54 000	16 380	3.30	160 000
Total	61 106	17 450	3.5	160 000
Lighting option 2: upgrade to 1x36W fittings with mirror reflector and low ballast	235 000	37 609	6.25	348 132

Source: Australian Taxation Office

6.17 The low level of compliance with the requirement for energy audits suggests that there is significant scope for energy and cost savings in agencies. This is especially the case given that when entering into a lease or a purchasing arrangement for office accommodation only 45 per cent of agencies explicitly take into account the potential energy use of the office accommodation and only 58 per cent explicitly consider the inclusion of energy efficiency measures within the accommodation. As noted previously those agencies that had undertaken energy audits achieved energy consumption reductions of 19 per cent compared to reductions of 10 per cent for agencies that did not.

New building leases

6.18 Under the Government's policy, new building leases were not to include any provision permitting the recovery from the tenant of the cost of energy used by building central services during normal working hours. This type of lease identified above is more commonly referred to as a gross lease; the objective of the policy was to change new building leases from net leases into gross leases. Gross leases provide an incentive for building owners to improve the efficiency of their building systems. From the ANAO survey, 452 (25 per cent) leases are potentially in breach of this requirement. Some agencies have 100 per cent of their leases within this category.

6.19 Agencies indicated to the ANAO that in some cases, it is difficult not to have a net lease arrangement – particularly if the agency occupies an entire building and has done so for an extended period or if there are requirements for 24 hour operations. The policy has been in place for five years while leases can be place for 15 years. Some agencies indicated that in markets such as Western Australia, net leases are the market standard and an agency seeking a gross lease may have to pay more. Other leases are long standing contractual commitments in ‘fit for purpose’ buildings that make it difficult to economically adjust. However, the two agencies with the highest number of net leases (that is, the Australian Federal Police and the Australian Customs Service) are also two agencies that did not achieve the energy use target for central services. This may suggest that greater priority will need to be given by these agencies to this issue. However, for many agencies just measuring the difference between tenant light and power consumption and office central services is a challenge that reduces their capacity to meaningfully identify energy efficiency measures. DEH has indicated that separate metering arrangements in this area can make a significant difference to energy performance over time.

Recommendation No. 13

6.20 In order to reduce energy consumption in Australian Government operations and improve compliance with Government policy, the ANAO recommends that FMA agencies and CAC entities (where they have not already done so):

- (a) consider introducing energy management plans that take into account operational and property management requirements across the portfolio;
- (b) conduct energy audits, where appropriate, to determine high priority energy savings that can be made across the organisation;
- (c) ensure that separate digital metering for tenant light and power and for central services is standard practice at all major sites with ongoing leases; and
- (d) implement all energy conservation initiatives that are cost effective within remaining lease periods.

Department of the Environment Heritage response

6.21 Agreed in principle. The Department encourages agencies to develop and implement energy management plans as part of their EMS. These issues will be considered in updating the energy efficiency policy for government operations.

Agencies' response

6.22 A further 41 agencies and entities agreed with or expressed support for this recommendation. The Reserve Bank of Australia qualified their response, stating that where they are 'a tenant, it is only as a minor tenant in major buildings and so it is not possible to implement the full range of initiatives suggested'. The Australian Customs Service qualified their response stating that 'Customs generally occupies multi tenanted office accommodation and therefore views item (c) as being the relevant lessors responsibility to agree to and fund. In this regard Customs has been actively negotiating with lessors for the provision of separate metering, however in most cases there are limited incentives for lessors to comply'. The Department of Health and Ageing 'supports the recommendation 13(d) with qualification'. The Department has seen the demonstrable benefit of energy conservation issues but to suggest that all initiatives be implemented does not make allowances for an agency's business priorities nor their capital works programs.

6.23 The Department of Defence disagreed with part 13(d) of the recommendation. Defence stated that 'with respect to buildings located in defence bases and noting the explanation of building ownership in defence, provided in 13(c)⁸² funding for energy initiatives are considered within the facility funding operations process and are considered on their merits'. Defence agreed with all other parts of the recommendation.

ANAO Comment

6.24 The ANAO recommendation 13(d) is based on current government policy which states that all cost-effective energy savings measures identified in energy audits must be implemented⁸³.

Building Rating and Minimum Performance Standards*New Buildings*

6.25 The current Australian Government policy for new buildings and tenancies is that all new and substantially refurbished buildings, whether Commonwealth owned or where the Commonwealth is the majority tenant, must meet a minimum energy performance standard. The standard identified in Measures for Improving Energy Efficiency in Commonwealth Operations (2000) is the 1994 BOMA Energy Guidelines (with a 20 per cent margin of leniency for substantially refurbished buildings). However, the BOMA

⁸² Defences response for 13(c) – 'Defence is different o most other Australian Government agencies in that it leases both office space in the commercial market] place and builds its own office buildings on it s military bases'

⁸³ Measures for Improving energy efficiency in Commonwealth Operations (2000)

guidelines are no longer publicly available and in any case, only apply to capital cities. DEH has advised that a standard of 5 stars on the ABGR is equivalent to the minimum performance standard set out in the policy.

6.26 The Australian Government has very few government buildings that meet the 5 stars ABGR requirement. This is not surprising as there are currently few buildings in Australia with a 5 star ABGR, which makes achieving the target more challenging. A recent report from the Building Commission of Victoria found that the application of green building concepts, especially in tall commercial buildings in the US and Europe, is ahead of anything yet attempted in Australia. The report found that the roll out and enthusiasm for green buildings in Europe and the USA is also more advanced than in Australia – especially at a Government level. In the USA, leadership by Governments such as California and the capital City of Chicago in setting standards for their buildings and/or lease arrangements a major impact on industry and market awareness of the opportunities offered by green buildings.⁸⁴

6.27 Agencies indicated some confusion as to the required standard although generally for new buildings or major refurbishments they were seeking to achieve 4-5 stars ABGR. The ANAO found examples of good practice consideration of whole-of-life cycle assessment in new buildings for agencies such as Defence, DIMIA, ABS and Health and Ageing. Defence had incorporated whole of life costing into new building design as well as incorporating ecologically sustainable development principles into contract specifications (although noting that security should not be compromised).

6.28 The original BOMA guidelines requirements were set significantly above best practice at the time and are still a challenge for agencies at present. Nevertheless, the new generic ‘green lease’ developed by DEH provides a framework for agencies to achieve a 4.5 ABGR.

6.29 Overseas evidence on the development of more sustainable office buildings generally supports the cost effectiveness of building green design features into a building from the start rather than retrofitting measures afterwards. One economic analysis report, *The Costs and Financial Benefits of Green Buildings*, from the State of California, USA, indicated that investing an additional 0 to 2 per cent of a building’s construction costs in sustainable building design measures upfront results in savings of 20 per cent or more of those construction costs over the building’s lifetime (assumed, conservatively, to be 20 years). Therefore, an initial upfront investment of up to \$100,000 to incorporate green building features into a \$5 million project would result in a

⁸⁴ Australian Green Building Mission, Building Commission (Victoria); 2003; International Developments in Green Buildings.

savings of \$1 million (in today's dollars)'.⁸⁵ DEH has also commented that achieving a 4.5 star AGBR in Australia is quite achievable for new buildings without any significant additional costs.⁸⁶

6.30 Nevertheless, from discussions with agencies during the audit, it appears that there are also some challenges in matching the expectations for new buildings with actual results. DEH reported difficulties in fully realising the energy savings from the refurbishments of the John Gorton Building in Parkes, ACT. This is despite the excellent results obtained from the building for tenant light and power (that is 5 500 MJ/person in 2003–04).

6.31 However, DEH has provided advice to the Public Works Committee which has sometimes necessitated the upgrading of some buildings. This occurred because either agencies or their consultants did not understand the building standard requirements. DEH has also advised that they are developing a model 'Green Lease' that can be used by Australian Government agencies. This will support the delivery of 4.5 star performance levels over the life of a lease.

Existing Buildings

6.32 As discussed in Chapter 5 the current target for agencies aggregate building portfolio is 10 000 MJ per person per year for tenant light and power (by 2002/03). Using current government energy figures this can be translated into an average ABGR performance of 2.5 stars.

6.33 The ABGR and other rating tools can be useful in establishing the energy efficiency of a building or tenancy and as a benchmark to measure improved performance against. In Australia, approximately 14 per cent of the office tenancy market has been rated by ABGR and is continuing to grow.⁸⁷ From a recent conference on energy management in commercial office buildings⁸⁸, it is evident that many of the major private lease management companies in Australia have rated their entire portfolio of office buildings. By individually rating buildings, especially where large portfolios are involved, tenants and owners can identify which buildings are working inefficiently and can track the efficiency changes of buildings over time.

6.34 From the ANAO survey, building and tenancy ratings have not been a standard practice across agencies. Only 14 buildings and tenancies have been officially rated although Centrelink has 'unofficial' ratings that provide much

⁸⁵ State of California, 2003; Building Better Buildings: A Blueprint for Sustainable State Facilities. (Update)

⁸⁶ Department of Environment & Heritage, 2005, ESD Design Guide, For Australian Government Buildings; Page 17

⁸⁷ <http://www.abgr.com.au/downloads/bulletin/BulletinNo24.htm>

⁸⁸ ABGR 3rd National Conference April 2005

of the same information. The Civil Aviation Safety Authority (CASA) has had seven buildings and tenancies rated, including one five star building. The major agency using building ratings (if unofficial) is Centrelink. This is discussed in the case study as follows.

Case Study 5—Centrelink property portfolio energy efficiency rating

In addition to Commonwealth energy intensity targets, Centrelink is aiming to move its property portfolio to an average Australian Building Green Rating (ABGR) of at least 3.5 Stars. All new buildings constructed for Centrelink are now required to achieve a 4.5 star ABGR. Negotiations for leases in existing buildings aim to achieve a 3.5 star rating. Final consideration is now being given to a program of energy conservation measures throughout the Centrelink property portfolio. These measures have been developed from energy audits (some 180 to date) and will greatly improve the energy performance of upgraded sites.

ANAO comment

Centrelink provides a useful model for other agencies to consider in terms of improving the energy performance of existing buildings and tenancies. By setting a target for the entire portfolio the energy performance of all buildings and tenancies, not just new ones, more consideration is given to improving poorly performing buildings and tenancies.

6.35 A tenancy portfolio with an average of 3.5 stars ABGR would equate to an intensity level of between 7 500 and 8 000 MJ/person for tenant light and power in Australian Government agencies. This would be consistent with better practice. Obtaining an average rating is useful in that there is a significant spread of efficiency across buildings in Australian Government agencies. The CASA rated buildings survey illustrates this spread (table 6.4)

Table 6.4

CASA rated buildings survey

Building	ABGR
CASA Building	2.0
Novell House	3.5
NSW CAO	5.0
Vic/Tas AO	2.5
Melbourne Airline Office	2.5
Sydney Airline Office	3.5
Sydney Basin AO	3.0

Source: ANAO survey of green office procurement

6.36 While the cost of officially rating all buildings in a large agency such as Defence could involve a substantial upfront cost, targeting the rating to major high-energy use buildings in the first instance would provide a more cost

effective method of achieving this. However in Defence, the absence of sub-metering in establishments would present a major constraint on this approach progressing at the current time. For smaller agencies, schemes such as the ABGR provide self-rating tools on line. This provides a reasonably accurate base building energy rating at no cost other than the time required to do the calculation. The accredited rating is designed for building owners or tenants seeking to promote the star rating of the building or tenancy.⁸⁹

Recommendation No. 14

6.37 In order to improve the sustainability and leadership role of the Australian Government in good building design the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so):

- (a) consider an appropriate energy rating scheme for their existing property portfolio such as the Australian Building Greenhouse Rating; and
- (b) develop an efficiency target for portfolio tenancies and buildings using this energy rating scheme.

Department of Environment and Heritage response

6.38 Agreed in principle. These issues will be considered in updating the energy efficiency policy for government operations. Portfolio energy targets are already part of government policy. These differ from building-level energy efficiency assessments.

Agencies' response

6.39 A further 41 agencies and entities agreed with or expressed support for this recommendation with one agency disagreeing. The CSIRO agreed with qualification. 'The majority of CSIRO property portfolio is laboratories and there is currently no energy rating scheme available for these types of buildings. CSIRO recommends that the AGO [now part of the Department of Environment and Heritage] consider developing an appropriate rating tool for buildings other than offices'.

6.40 The Department of Health and Aging disagreed with part (a) of the recommendation. Health commented that 'while the Department agrees with an energy-rating scheme for new properties, they do not support it for existing properties. The Department considers that like many agencies housed in older stock, the exercise of evaluation is not regarded as cost effective given the remaining lease period.'

⁸⁹ The first step to becoming a star; www.abgr.com.au

Greenhouse Challenge Membership

6.41 The Greenhouse Challenge is a voluntary partnership between industry bodies and the Australian Government, through DEH. As part of Government policy, agencies were encouraged by Ministers to join the Greenhouse Challenge Program although membership was not mandated. Nevertheless, agencies were requested by Ministers to advise their Minister (copied to the Minister for Environment and Heritage) if the costs significantly outweighed the benefits from this action.

6.42 In 2005, the Greenhouse Challenge Plus was introduced to update and expand the program. As at 13 February 2005, only ten government agencies were members.

Table 6.5

Australian Government Members of the Greenhouse Challenge

Agencies members of the Greenhouse Challenge
Australian Customs Service
Australian Sports Commission
Australian National University
Department of Agriculture, Forestry & Fisheries
Department of Defence
Department of Family and Community Services
Department of Industry, Tourism and Resources
Department of Parliamentary Services
Department of the Environment & Heritage
Centrelink

Source: Greenhouse challenge website <http://www.greenhouse.gov.au/challenge>

6.43 As noted from DEH, a major benefit of Greenhouse Challenge membership is 'being able to demonstrate to the community your commitment to reducing your greenhouse gas emissions and the environmental impact of your operations - strengthening your organisation's environmental credentials and at the same time demonstrating good corporate citizenship'. While small agencies with single property holdings may not find the benefits of membership particularly advantageous, there are potential financial benefits for larger agencies with extensive property portfolios or vehicle fleets. These benefits from energy savings have been documented on the DEH website as case studies from the Greenhouse Challenge.

6.44 The ANAO appreciates that Australian Government agencies and entities already have reporting obligations under existing energy policy requirements. Membership of the Greenhouse Challenge would more likely benefit those agencies positioned to go beyond compliance towards more substantial energy and cost savings.

Recommendation No. 15

6.45 In order to improve compliance with government policy and strengthen sustainable business practices, the ANAO *recommends* that FMA agencies and CAC entities (where they have not already done so) consider joining the Greenhouse Challenge Plus program.

Department of the Environment and Heritage Response

6.46 The policy for government energy efficiency addresses the majority of emissions from most agencies, including both voluntary and mandatory measures, as well as public reporting on performance. The additional benefit from membership of the Greenhouse Challenge Plus programme would need to be considered by each agency.

Agencies' response

6.47 43 agencies and entities agreed with or expressed support for this recommendation. Five agencies qualified their response.

- The Department of Defence qualified their agreement stating that 'they had some concerns over the potential for duplication for government agencies between the greenhouse challenge and whole of government energy reporting processes. In addition, Defence commented that they will continue to work with DEH to encourage them to consider how best to reduce the duplication in reporting obligations for energy and greenhouse issues;'
- The Reserve Bank commented that as a small agency they 'do not consider that the Greenhouse Challenge Plus program would deliver additional benefits over those contained in its ESD policy, environmental management systems or energy management program;'
- Department of Employment and Workplace Relations also qualified their response stating that the Greenhouse Challenge would not deliver additional benefits contained in existing programs and initiatives;
- CSIRO qualified their agreement in terms of the resource implications of joining the greenhouse challenge; and
- Insolvency and Trustee Service Australia qualified their response in terms of needing further evaluation of Greenhouse Challenge membership.

ANAO Comment

6.48 The ANAO recognises that membership of the Greenhouse Challenge Plus may not be necessary for all Australian Government agencies. However, Ministers considered that agencies should at least consider the merits of membership. The ANAO has also requested that agencies at least consider whether there may be some advantages in membership – especially for those agencies seeking to demonstrate leadership in energy conservation or efficiency in particular areas of their operations.

7. Framework for Sustainability

This chapter outlines some of the key conclusions from the audit and recommends a strengthened sustainability framework for Australian Government operations.

Audit Conclusions

7.1 The audit has identified a small number of better practice examples of green office procurement by Australian Government agencies. These examples illustrate what could be achieved from the wider adoption of more sustainable business practices across the Australian Government public sector. Improvements in energy efficiency in particular have been significant with important cost savings and reductions in greenhouse gas emissions being achieved. However, there are significant challenges and gaps in the implementation of green office procurement.

7.2 The current energy intensity targets (tenant light and power at 10,000 MJ/person per annum and Central services at 500 MJ/person per annum) were set up until 2002–03. These targets are currently below best practice and are not in line with the government's objective to 'lead the community by example'⁹⁰. While DEH has important new policy work in progress in this area, the targets are yet to be updated. These targets need to be revised as a priority to take account of improvements in new technology and business practices. Similarly, the policy in relation to the energy efficiency of office equipment also requires updating as it is largely redundant because of advances in industry standards.

7.3 The 'encouragement' of agencies to develop an environmental management system (EMS) has led to only moderate development of EMSs across agencies. Given the importance and usefulness of EMSs at identifying and minimising environmental impacts, the ANAO considers that the Australian Government has some way to go to achieve best practice in this area.

7.4 In areas with specific Australian Government commitments, such as improving the energy efficiency of the vehicle fleet and reducing or recycling packaging waste, agencies have given insufficient priority and as a consequence, progress has been negligible to date. The ANAO considers the Australian Government's commitment 'to be at the forefront in environmental purchasing practice through buying goods and services that seek to minimise possible environmental impact' has not as yet been achieved. The voluntary

⁹⁰ Measures for Improving Energy Efficiency in Commonwealth Operations, 2000

nature of the guidelines for purchasing and managing packaging waste has also contributed to the poor overall performance.

7.5 In the case of water use and the management of the general waste stream, there is no current government policy. As a consequence, there is a range of practices across the Australian Government but with only a few agencies demonstrating good practice. The absence of whole of government direction in managing waste (particularly electronic waste) and water conservation is a significant shortcoming in sustainable government operations.

7.6 The audit identified gaps in the application of whole of life cycle costing and in the management of the environmental impacts of procurement decisions.

Improved guidance from DEH and strengthened commitment from Heads of agencies and Chief Executive Officers is required as 25 per cent of respondents commented that green procurement policy was not sufficiently clear or precise in terms of what is required and ten per cent considered that it was not a priority in their agency.

A strengthened sustainability framework

7.7 This audit has identified shortcomings in addressing the Government's stated objective to be at the forefront of sustainable procurement practice. The ANAO considers that significant improvement in this area requires the Department of the Environment and Heritage to adopt strategies to better promulgate and embed best practice across Australian Government agencies. Clear targets across all aspects of sustainable procurement (that is, water, waste, energy and general procurement) and mandatory reporting against the targets should be part of this strengthened approach. It will also be important to improve the Department's communications with Australian Government bodies on requirements as well as better practice.

7.8 Ideally, as part of this framework, targets that reflect best practice should be set and monitored. Much of the progress that has been made in energy use in Australian Government operations can be linked to the targets and measurement and reporting against progress towards these targets. The ANAO considers that an approach similar to the policy, 'Measures for improving energy efficiency in Commonwealth Operations' could be used to report on the progress of agencies and of the government as a whole. This initiative contained a reporting timetable of 2002-03 when the policy was introduced in 2000. The date established for this process provides a useful precedent in setting future targets. The ANAO considers that a similar timeframe could be applied to the proposed framework. It is suggested that

2008 would be a realistic and achievable date, as it gives agencies some two years to improve performance.

7.9 The timetable also enables consistent and comparable measures (such as ML/person/annum for water consumption or tonnes of waste/person/annum) along with metering of water consumption and the measurement of waste going to landfill to be implemented. These will be important prerequisites if this approach is to be successful. Currently, most agencies do not have metering to measure water consumption nor do they have the mechanisms to measure waste being produced.

7.10 As suggested from the ANAO survey results, information on green procurement could also be better promulgated. The ANAO also considers that a comprehensive communication program is needed to inform agencies of new requirements and better practice. A one stop website for government agencies to access would assist in improving information flows across the Australian Government.

Recommendation No. 16

7.11 In order to strengthen the sustainability framework for Australian Government operations, the ANAO recommends that the Department of the Environment and Heritage pursue strategies to:

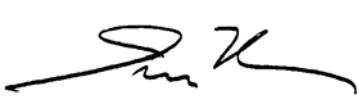
- (a) achieve best practice green office procurement by Australian Government agencies and entities, in energy efficiency, water conservation, waste management and in procurement practices by an appropriate date (such as 2008–09);
- (b) update current policies and targets and introduce additional required targets to reflect the commitments in each of the areas identified above;
- (c) develop a comprehensive website and communications program to advise Australian Government agencies and entities on the requirements and mechanisms to achieve the targets;
- (d) regularly measure performance against the targets and monitor and review the targets and policies in terms of their alignment with better practice; and
- (e) require reporting on progress towards sustainability targets.

Department of the Environment and Heritage Response

7.12 The Department supports this recommendation in general, but notes that there are limitations on what strategic actions we can pursue across a range of issues at once. The Department proposes to develop a strategic

framework for public sector environmental performance (no such framework currently exists). This framework will contain agreed principles, which can then inform further policy development in specific areas, such as water and waste. This further work can be a mix of updating existing policy and developing new policy in areas currently not addressed, such as water efficiency. The Department will set up a new website to act as a portal for information on sustainability in government, which will be a key mechanism for communications to agencies and other stakeholders. It will be accompanied by an email discussion list open to agency staff that will enable them to share ideas and experiences as a network. In our public consultation, we will assess options for improving the quality and scope of current reporting by agencies.

7.13 With respect to energy issues relating to parts (c) and (d) of this recommendation: (c) Agreed. A new website and communication strategy are identified requirements that are being considered in the finalisation of the revised energy policy for Government Operations. (d) Agreed. Agency energy performance is monitored annually through WOGER. Agencies data are reviewed and monitored through the EDGAR data validation process to provide feedback on performance in relation to targets and policy requirements



Ian McPhee
Auditor-General

Canberra ACT
22 December 2005

Appendices

Appendix 1: Agency Responses

Department of the Environment and Heritage response

Recommendation	Response to ANAO
Recommendation No. 1	Agreed. This is already referred to in the Department's purchasing policy and CEIs.
Recommendation No. 2	Agreed. The Department will establish a new website to host relevant information on sustainability in government, including information on purchasing.
Recommendation No. 3	Agreed. Agencies are also encouraged to reply to the annual EMS status letter sent out by the Department in December of each year.
Recommendation No. 4	Agreed. The Department would support agencies implementing such challenges as part of an EMS.
Recommendation No. 5	<p>Agree in principle, but the Department considers that it is primarily the responsibility of individual agencies to determine the particular value for money, in their own circumstances, of goods and services. However, on some issues such as energy, benchmarks are available through initiatives such as <i>Energy All Stars</i>.</p> <p>Group and cluster purchasing prospects should be investigated by agencies going to market at about the same time for common goods and services. This can be guided by reference to the annual procurement plans now produced by agencies.</p>

<p>Recommendation No. 6</p>	<p>6(a): Agreed. Better practice guidance covering the purchasing, performance and life cycle impacts (including in disposal) of ICT equipment and services will be developed by the Department and AGIMO in 2005–06. This will also support the Computer Technologies for Schools programme administered by DEST.</p> <p>6(b): Agreed. Australian Government policy requires Departments and agencies to purchase equipment with 4-star or better energy efficiency performance and office equipment that complies with the US Environment Protection Agency ‘Energy Star’ standard, where it is available and fit for purpose.’ To assist with implementing the above policy (and others), the Ministerial Council on Energy is developing a database (www.energyallstars.gov.au) of high performing products. The database seeks to promote energy efficiency and provides the tools to better assess value-for-money.</p>
<p>Recommendation No. 7</p>	<p>7(a): Agreed. The Department will review this policy based on the data collected for the 2004–05 whole of government energy report (WOPER) and other relevant information.</p> <p>7(b): The Department considers that it is primarily the role of individual agencies (through their EMS) to identify agency-level requirements to meet policy, based on guidance provided by Finance and the Department of the Environment and Heritage.</p>
<p>Recommendation No. 8</p>	<p>Agreed. The Department supports this recommendation, noting that greenhouse neutral fuels and verified offsets are available from Greenhouse Friendly approved abatement projects (part of the Greenhouse Challenge Plus Programme), as well as through other providers.</p>
<p>Recommendation No. 9</p>	<p>Agreed. The Department supports this recommendation and has developed new guidance on water efficiency for agencies that will be released in 2005–06.</p>
<p>Recommendation No. 10</p>	<p>Agreed. We note the <i>ESD Design Guide for Australian Government Buildings</i> provides useful assistance for new buildings and major refurbishments. The reporting of major refurbishment performance in annual or other reporting will assist in the benchmarking of project performance, such as on recycling rates achieved for construction and demolition waste.</p>

Recommendation No. 11	Agreed, noting that this may require agencies in shared leased premises to negotiate with building owners, managers and possibly other tenants about providing or altering these service arrangements. Agencies should ask about minimal packaging in supply contracts and encourage suppliers to take back and reuse or recycle packaging materials.
Recommendation No. 12	Agreed. These issues will be addressed in the next whole of government energy report.
Recommendation No. 13	Agreed in principle. The Department encourages agencies to develop and implement energy management plans as part of their EMS. These issues will be considered in updating the energy efficiency policy for government operations.
Recommendation No. 14	Agreed in principle. These issues will be considered in updating the energy efficiency policy for government operations. Portfolio energy targets are already part of government policy. These differ from building-level energy efficiency assessments.
Recommendation No. 15	Agreed. The policy for government energy efficiency addresses the majority of emissions from most agencies, including both voluntary and mandatory measures, as well as public reporting on performance. The additional benefit from membership of the Greenhouse Challenge Plus programme would need to be considered by each agency.
Recommendation No. 16	The Department supports this recommendation in general, but notes that there are limitations on what strategic actions we can pursue across a range of issues at once. The Department proposes to develop a strategic framework for public sector environmental performance (no such framework currently exists). This framework will contain agreed principles, which can then inform further policy development in specific areas, such as water and waste. This further work can be a mix of updating existing policy and developing new policy in areas currently not addressed, such as water efficiency. The Department will set up a new website to act as a portal for information on sustainability in government, which will be a key mechanism for communications to agencies and other stakeholders. It will be accompanied by an email discussion list open to agency staff that will enable them to share ideas and experiences as a network. In our public consultation, we will assess options for improving the quality and scope of current reporting by agencies.

	<p>With respect to energy issues relating to parts c and d of this recommendation:</p> <ul style="list-style-type: none"> (a) Agreed. A new website and communication strategy are identified requirements that are being considered in the finalisation of the revised energy policy for Government Operations. (b) Agreed. Agency energy performance is monitored annually through WOGER. Agencies data are reviewed and monitored through the EDGAR data validation process to provide feedback on performance in relation to targets and policy requirements.
--	---

Department of Defence response

Defence as the largest Commonwealth agency is committed to demonstrating green practice in our office operations. The Defence Environmental Policy supports this and states we will strive to be a leader in all areas of sustainable environment management.

The Defence Environmental Management System (EMS) provides a mechanism to manage green office procurement requirements. The EMS is a systematic approach to address environmental risks across all Defence activities including at the site level where office based operations are conducted. Using the EMS approach, Defence has been focusing attention on those significant environmental issues which pose the greatest risk to Defence capability, such as contamination and environmental impact assessments for new capability and major military exercises.

However, Defence is well positioned with regard to the issues raised in the ANAO Audit of Green Office Procurement Report. The work that has been undertaken over the last five years to build a quality management approach to environmental management across Defence is realising positive results in a range of areas. It has also provided the framework for Defence to respond further to those areas highlighted in the ANAO Audit Report for action, most of which are already being addressed.

Furthermore, the ANAO Audit Report provides Defence with an opportunity to increase the focus on the issues raised particularly in the areas of energy, water and waste. Accordingly, the recently revised Defence Environmental Strategic Plan has established strategic objectives and targets for energy, water and waste management and will develop a suitable reporting framework to measure ongoing progress.

Recommendation	Response to ANAO
<p>Recommendation No. 1</p>	<p>Defence Agrees.</p> <p>Defence has been working towards integrating environmental considerations into procurement decisions and has achieved significant progress to date. Currently the Defence Procurement Policy Manual, the Infrastructure Management model and the Green Building Guide all including components for whole of life considerations. Additionally, whole of life costing has been specified in the Defence suites of Infrastructure contracts consistent with Ecologically Sustainable Development (ESD) principles.</p>
<p>Recommendation No. 3</p>	<p>Defence Agrees.</p> <p>Defence has met the Government policy requirements to have a corporate EMS in place by Dec 2002 and one large site certified to ISO 14001 by Dec 2003.</p> <p>The Defence EMS is now in place and requires environmental planning and assessment to be considered for all activities, at sites identified as significant. The Defence EMS at the corporate level provides EMS policy guidance and tools for use by all areas of Defence. Managers are able to use this information for guidance on how best to roll out the Defence EMS at sites. Groups and Services are able to use this information to ensure all their business activities and planning incorporate Defence EMS requirements. A key objective for the Defence EMS is to ensure seamless integration of environmental requirements in to all aspects of Defence core business.</p> <p>The Defence EMS encompasses all sites and all Defence activities. The Defence EMS has achieved certification to ISO 14001 for two major sites, with RAAF Townsville certified in 2003 and Puckapunyal Military Area certified in 2005.</p> <p>Additionally, under the EMS Defence has approximately 30 sites currently rolling out the EMS and another 37 commencing roll out over the next 3 years. Also captured under the Defence EMS are approximately 205 sites with an Environmental Management Plan (EMP), all at varying stages of review and update. With Defence owing 420 sites this direct EMS coverage is approximately 64% of sites. Environmental requirements for the remaining 36% of sites will be covered through site operating procedures and practices (such as Barracks Standing Orders) based on the level of risk specific to that site.</p>

<p>Recommendation No. 4</p>	<p>Defence Agrees.</p> <p>Defence is currently reviewing the Defence Environmental Strategic Plan to ensure energy, water and waste issues have strategic objectives and targets. To improve our environmental performance in the areas of energy, water and waste, Defence will establish a national environmental program for each with identified objectives and targets and a reporting framework to ensure regular progress updates are provided.</p> <p>The Defence Green Building Guide also sets energy, water and waste targets for office buildings (new or major refurbishments) and a number of other types of owned buildings.</p>
<p>Recommendation No. 4</p>	<p>Defence Agrees.</p> <p>Defence is currently reviewing the Defence Environmental Strategic Plan to ensure energy, water and waste issues have strategic objectives and targets. To improve our environmental performance in the areas of energy, water and waste, Defence will establish a national environmental program for each with identified objectives and targets and a reporting framework to ensure regular progress updates are provided.</p> <p>The Defence Green Building Guide also sets energy, water and waste targets for office buildings (new or major refurbishments) and a number of other types of owned buildings.</p>
<p>Recommendation No. 5(b)</p>	<p>Defence Agrees.</p> <p>Defence is currently conducting an open tender to select national providers for office requisites and janitorial products. The conditions of tender require tenderers to cost the provision of environmentally friendly products where possible. Defence would willingly work with other agencies to jointly purchase office supplies.</p>
<p>Recommendation No. 6(b)</p>	<p>Defence Agrees.</p> <p>Defence noted that the Commonwealth Department of Environment and Heritage is currently reviewing the Commonwealth Energy Policy through a formal Interdepartmental Committee (IDC) process. The revised energy policy may include provisions relating to the purchase of appliances and Defence understands that DEH are currently considering feedback from the IDC process on the interaction between setting mandatory energy efficiency levels for appliances and the requirement for agencies to pursue value for money in their purchasing.</p>

<p>Recommendation No. 8</p>	<p>Defence Agrees.</p> <p>Defence is currently investigating the cost of subscribing the Executive Vehicle Scheme to 'Greenfleet.'</p>
<p>Recommendation No. 9(b)</p>	<p>Defence Agrees.</p> <p>Defence has the Sustainable Water Strategy in place and requires staff and contractors to implement practices that support sustainable water management. This strategy is also deemed a policy requirement under the Defence EMS to ensure compliance. As part of the Defence EMS continual improvement requirement, the Sustainable Water Strategy is to be reviewed in 2006. During this review Defence will consider how best to incorporate water efficiency targets.</p> <p>Defence is in the process of conducting a study on water use and consumption across all Defence properties. The outcome of this study will be the identification of Defence's largest water using sites and end use categories including potential for implementation of water efficiency measures for these sites.</p> <p>The Defence Green Building Guide has set water targets for office buildings (new or major refurbishments) and some other types of owned buildings. Defence has also set a 4 Star Green Office design requirement as an ESD target for office buildings. This requirement includes water saving measures for owned buildings. The Green Lease schedule (included in the draft Commonwealth Energy Policy) is to be applied to leased buildings, where appropriate.</p>
<p>Recommendation No. 10(a&b)</p>	<p>a) Defence Agrees.</p> <p>Defence is finalising the Waste Minimisation Strategy (the Strategy) which includes requirements for Defence to comply with the National Packaging Covenant. The Strategy is also deemed a policy requirement under the Defence EMS which ensures it is complied with.</p> <p>The Defence Green Building Requirements has set waste targets for office buildings (new or major refurbishments) and a number of other types of owned buildings. The focus of these targets is to ensure Defence can demonstrate a reduction of waste to landfill and an increase in reuse and recycling of waste from construction work including major redevelopments. Defence also requires construction (including refurbishment) contractors, to prepare, implement and report against a comprehensive Waste Minimisation Plan for the specific project.</p>

	<p>b) Defence Disagrees.</p> <p>Defence would require further clarification from ANAO on what would be required from Defence to enable measuring and reporting on environmental management for major refurbishments.</p>
<p>Recommendation No. 11(a&b)</p>	<p>a) Defence Agrees.</p> <p>Defence has incorporated waste minimisation best practice principles into the Defence Waste Minimisation Strategy (the Strategy). The Strategy creates a governance framework with prescribed accountabilities and responsibilities against specific departmental positions.</p> <p>The Defence Garrison Support contract includes a detailed statement of work for the delivery of waste management services. This statement of work has recently been revised to reflect the National Packaging Covenant requirements for waste management. Although the previous Garrison Support contract required recycling of organic waste, the revised changes has placed a greater emphasis on monitoring, measuring and reporting of recycled organic waste.</p> <p>b) Defence Agrees.</p> <p>Initiatives under the Strategy will see changes to contracting practices and Defence standing offers. These changes will be weighted towards National Packaging Covenant signatories in accordance with Department of Environment and Heritage (DEH) guidance and 2005–2008 action plans.</p> <p>Implementation of the Strategy will commence in early 2006 and will include changes in the relevant purchasing and procurement policy and amendments to relevant contracts and standing offers. To this end negotiations have commenced for changes to the following high priority standing offers:</p> <ul style="list-style-type: none"> - Provision of Office Requisites and Janitorial Supplies; - Deployable Pallets; and - Preferred Computer Systems. <p>Over the next two years Defence will focus on the following changes in support of the Strategy:</p> <ul style="list-style-type: none"> - Amendments to the Defence (and ADF) Packaging Standards; - Incorporating waste minimisation best practice principles into relevant operational policy and doctrine; - Review of the Green Building Guide to

	<p>incorporate all newly defined best practice waste principles;</p> <ul style="list-style-type: none"> - Incorporating waste awareness into existing environmental education and training programs for all key personnel; - Completion of amendments to all other relevant standing offers; and - Continued review and amendments to the Defence Garrison Support contract progressively.
<p>Recommendation No. 13(a,b,c&d)</p>	<p>a) Defence Agrees.</p> <p>Defence has Regional Energy Management Plans in place for eight of the twelve Defence CSIG regions. The remaining four CSIG regions are currently in the process of developing their plans. All Regions are expected to have these in place over the next year. In addition to the Regional Energy Management Plans, three CSIG regions also have site specific energy management plans for their identified, high energy consumption sites.</p> <p>b) Defence Agrees.</p> <p>Defence conducted energy audits across all CSIG regions during 2001-02. The audits identified high priority energy savings that could be made across the organisation. The savings opportunities were acted upon such that Defence has been able to progressively and continuously reduce its overall energy consumption for the forth successive financial year up to the end of June 2004. Work to further improve energy efficiency and reduce energy consumption generally within Defence, is being actively pursued during the current financial year, 2005-06 and beyond.</p> <p>c) Defence Agrees.</p> <p>Defence is different to most other Australian Government agencies and departments in that it both leases office space in the commercial market place and builds its own office buildings on its military bases. The Commonwealth Energy Policy is currently under review and will set out the requirements for energy metering by Australian Government agencies and departments. Defence will comply with the resulting policy requirements.</p> <p>With respect to commercial leases the proposed policy changes will include metering requirements for different size and types of leases. Management of Defence leases is outsourced to a commercial third party and Defence is currently investigating</p>

	<p>how it might incorporate the new energy policy requirements into that arrangement.</p> <p>Defence will also be developing a metering strategy over the next six months that will identify the most effective metering arrangements that will enable Defence to demonstrate that it is using the energy it consumes in the most efficient manner possible.</p> <p>Defence Disagrees.</p> <p>With respect to buildings located in Defence bases and noting the explanation of building ownership in Defence, provided in 13(c), funding for energy initiatives are considered within the facility operations funding process and are considered on their merits.</p>
<p>Recommendation No. 14(a&b)</p>	<p>a) & b) Defence Agrees.</p> <p>The revised Commonwealth Energy Policy, currently in draft, sets portfolio targets for central service, and tenant light and power for existing office buildings. The ANAO Recommendation should follow this revised Commonwealth Energy Policy.</p> <p>Leased buildings will be covered by the Green Lease Schedule of the Commonwealth Energy Policy and would have resource implication to fulfil the Commonwealth Energy Policy and ANAO Recommendation if different methods are used.</p>
<p>Recommendation No. 15</p>	<p>Defence Agrees with clarification.</p> <p>Defence has some concerns that the ANAO report recommends agencies consider joining the Greenhouse Challenge Plus Program. Defence is of the view that there is substantial duplication for Government agencies between the Greenhouse Challenge and Whole Of Government Energy Report (WOGER) reporting processes.</p> <p>In 2000 Defence signed onto the Greenhouse Challenge Program and has reported to the Australian Greenhouse Office as part of its agreement requirements. That Agreement expired in 2003 and a new agreement or membership to the Greenhouse Challenge Plus Program is still under discussion. Defence has had informal discussions with officers from the Department of Environment and Heritage (DEH) regarding Program membership and duplication with the WOGER requirements. Defence understands that the Greenhouse Challenge Plus Program is mainly a partnership with industry rather than Government agencies.</p>

	Defence will continue to work with DEH to encourage them to consider how best to reduce the duplication in reporting obligations for energy and greenhouse issues.
--	--

Department of Finance and Administration response

Recommendation	Response
Recommendation No. 1	Agreed. Chief Executive's Instructions would be the appropriate instrument through which to require officials to have regard to environmental matters where relevant and appropriate.
Recommendation No. 2	Agreed with qualification. In preparing any further guidance, the Department of the Environment and Heritage should consult with all agencies and not just the Department of Finance and Administration (Finance). Any further guidance should be incorporated into the existing Environmental Purchasing Guide to improve accessibility.
Recommendation No. 4	No Response
Recommendation No. 5	Agreed. Finance notes that any consideration of opportunities for the procurement of goods under a cluster arrangement should specifically take into account any impacts in terms of diminishing competition or any potential detriment to fair access to the Australian Government procurement market for Small and Medium Enterprises. New advice being developed by Finance as part of the Information and Communications Technology (ICT) Investment Framework and the Strategic Guide to e-Procurement will include appropriate guidance on environmental considerations and opportunities for collaboration in respect of ICT products and services.
Recommendation No. 6	The review of the Government Information Technology and Communications (GITC) Framework, which is provided by Finance as an optional contracting framework for Australian Government agencies when purchasing ICT equipment, software and services, provides an opportunity to include appropriate guidance on environmental considerations. Guidance on product stewardship will be included in Finance Practice Checklists on ICT Asset Management and Environmentally Friendly ICT.
Recommendation No. 7	Agreed.

Recommendation No. 8	Agreed.
Recommendation No. 9	Agreed, noting in relation to Recommendation 9 (a) that the better practice guidance must provide robust information on costs and benefits since there will be varied experience in departments and agencies in dealing with water conservation practices.
Recommendation No. 10	Agreed, noting in relation to Recommendation 10 (a) that value for money is the core principle underpinning Australian Government procurement. In relation to Recommendation 10 (b), departments and agencies provide summary reports annually on energy consumption to the Department of Industry, Tourism and Resources. As well, departments and agencies also report on energy consumption on an annual basis to the Department of Environment and Heritage. Therefore, the requirement to consider measuring and reporting on the environmental management of major refurbishments as part of reporting on sustainability in the annual reports of departments and agencies should be examined in the context of the reports on energy consumption to see if they are harmonised, and, if they are not, the reports should be reviewed and rationalised
Recommendation No. 13	Agreed, noting that in relation to some Commonwealth properties because of their age and heritage value, it is not always possible to achieve significant energy conservation improvements. Nevertheless, Finance will always endeavour to achieve the best outcome for energy conservation improvements taking into account the age and heritage value of those properties.
Recommendation No. 14	Agreed, noting that current Government policy requires all new and substantially refurbished buildings, whether Commonwealth owned or where the Commonwealth is the major tenant, must meet a minimum energy performance standard. The standard is the Building Owners and Managements Advisers Energy Guidelines (1994), which the Australian Greenhouse Office has advised is the equivalent of a 5.0 star Australian Building Greenhouse Rating. It may not be possible to achieve a 5.0 star rating with older premises, particularly those with heritage value, or in regional centres, where there might be fewer new buildings.
Recommendation No. 15	Agreed.

Other Agency Responses

Agency	Summary response
Australian Communications and Media Authority	(ACMA) agree with the recommendations in the report and consideration of the issues covered by the audit will be included in the development of ACMA's environmental commitment.
Australian Broadcasting Corporation	The Australian Broadcasting Corporation (ABC) is very supportive of Green Office Procurement and generally agrees with the findings and recommendations contained in the proposed report.
Australian Bureau of Statistics	The ABS does not wish to make specific comments against the recommendations but supports their general thrust in guiding agencies to enhance their environmental purchasing policies. The ABS will consider incorporating the report's recommendation into its procurement practices and/or environmental management system as appropriate and as resources permit
Australian Centre for International Agricultural Research	ACIAR agreed with all recommendations. ACIAR agreed with qualification for recommendation 8.
Australian Customs Service	Agreed with all recommendations. Agreed with qualification to recommendation 13
Australian Electoral Commission	AEC agreed to all recommendations with qualification on four recommendations.
Australian Federal Police	<p>The AFP supports the general thrust of the report and conclusions and agrees in principle to the recommendations made. The AFP is working towards adopting many of the energy and conservation initiatives as part of the refurbishment and fit out of the AFP's new headquarters at ANZAC Park west and through the construction of specialist functions at its Majura site.</p> <p>The AFP will continue to embrace green initiatives, but for those recommendations where there is a significant resource implication, we will continue to consider available resource and competing priorities in determining the extent to which particular recommendations can be implemented.</p>

Australian Institute of Marine Science	Agreed with all recommendations
Australian Law Reform Commission	The ALRC has no concerns with the recommendations or the content of the report, with the exception of Recommendation 14. ⁹¹
Australian Public Service Commission	The Commission agreed with the recommendations on which comments were sought.
Australian Pesticides and Veterinary Medicines Authority	The APVMA agreed to all recommendations and noted that 'a number of the recommendations had already been implemented'.
Australian Securities and Investments Commission	ASIC welcome the ANAO performance audit on Green Office Procurement. It is important that the Government leads by example in relation to balancing value for money and sustainable business practices. The report highlights good practice and provides a clear direction to continue to minimise the impact of our actions on the environment. ASIC agrees with all the recommendations pertaining to it, the majority of which have already been implemented, or are planned to be as part of the process of accrediting our second largest site in 06/07.
Australian Sports Commission	The Australian Sports Commission (ASC) agreed or agreed with qualification to all recommendations. The qualifications were in relation to 6(b) and 8 – largely on the basis of cost. The ASC commented that they are a member of the Greenhouse Challenge and that they have an environmental management plan.
Australian Taxation Office (ATO)	The ATO agrees or agrees with qualification with the ANAO findings. The ATO qualified recommendation 5.
Australian Trade Commission	Austrade welcome the recommendations provided in this report. Austrade currently considers environmental and energy management requirement in managing its network of offices in Australia and overseas. Where possible, Austrade will implement these recommendations to further enhance its environmental procurement and purchasing practices.
Centrelink	The audit topic addresses an area of administration that is still developing and presents emerging challenges for agencies. Centrelink agreed to all relevant recommendations

⁹¹ The ALRC comments were taken into account in the body of the report.

Child Support Agency	The performance audit on Green Office Procurement has added value to CSA's implementation of its environmental management system, particularly CSA's green procurement policy.
Commonwealth Scientific and Industrial Research Organisation	<p>CSIRO recognises that it must consider the environmental impact in the procurement process when undertaking the purchase of goods and services and disposal of goods. Much of CSIRO's research is aimed at delivering more environmentally friendly options for industry, and CSIRO should lead by example and set a high benchmark for environmentally sustainable procurement practices. However it is also recognised that in the current fiscal environment, it is difficult for individual agencies to resource funding for green procurement initiative, and that whole of government programs and mandates would overcome this.</p> <p>CSIRO congratulates the ANAO on the conduct and intent of this audit and commits to not only improving its own green procurement practices but also to contribute to the policy and decision making process required to be made by the Australian Government in order to further drive the adoption of green procurement practice across the Commonwealth.</p>
Commonwealth Superannuation Administration	Agreed to all recommendations
Department of Agriculture, Fisheries and Forestry	(DAFF) have considered the draft report in that context and note with interest the extensive nature of the draft recommendations on which the ANAO has sought comment. We note, however that none of the recommendations are directed specifically to this department. While we have no particular comment to make on the report or its recommendations I would note, however, that we do hope to address several of the draft recommendations in an Environmental Management System that the Department is developing
Department of the Attorney-General	The Department welcomed the report and agreed with its recommendations. The Department commented that the recommendations will assist the Government to be at the forefront of environmental purchasing.
Department of Communications, Information Technology and the Arts	The Department agrees with each of the recommendations directed to DCITA and has no further comment to make on the report

Department of Education, Science and Training	The Department supports the overall findings and recommendations of the audit. DEST is currently reviewing their Environmental Management Strategy and the audit has provided some valuable information to the review. The audit has also provided a useful state of play and examples across agencies regarding value for money procurement and environmental impacts from agency operations. The recommendations, which apply to the relevant co-ordinating agencies, should also assist in improving outcomes in these areas.
Department of Employment and Workplace Relations	In the main, DEWR supports the recommendations with the exception of Number 15, which was qualified.
Department of Foreign Affairs and Trade	<p>The Department of Foreign Affairs and Trade has continued to move forward in the process for a certified environmental management system for the R G Casey Building in Canberra with the intention of undertaking the certification process in 2006.</p> <p>Projects to improve the thermal efficiency of the RG Casey building have been carried out over the past year in an effort to maintain work area comfort and reduced energy consumption, and the Department is continuing to replace old office equipment with modern more power efficient and duplex enabled equipment.</p>
Department of Health and Ageing	The department is supportive of the report but does not support recommendations 10 (b) and 14 (a).
Department of Immigration and Multicultural and Indigenous Affairs	DIMIA agrees with the recommendations of the report and considers the report will be useful in assisting agencies achieve improved performance in environmental purchasing and sustainable business practices. The report highlights DIMIA's achievement in recycling of building and demolition waste material from its previous national office building. Waste minimisation is also an area that DIMIA focuses on, especially in relation to office waste recycling
Department of Industry, Tourism and Resources	DITR agrees with the ANAO's report. DITR is committed to green office procurement as evidence in the construction of its new building in Binara Street to a 4.5 star ABGR rating. DITR's Environmental Management System is aimed at managing and reducing water consumption energy and waste management. DITR is also a member of the Greenhouse Challenge

Department of the Prime Minister and Cabinet	The department agrees without qualification to all the recommendations apart from 6b and 10a that are qualified.
Department of Transport and Regional Services	The department agrees with all recommendations noting that 5b and 13b are currently in place in DOTARS through a contractual arrangement with our outsourced property services provider, and that 13c and 14a are already in place for major buildings.
Director of Public Prosecutions	Agreed to all relevant recommendations
Grains Research and Development Corporation	GRDC is please to offer in principle support for the recommendations contained in the draft report.
Insolvency and Trustee Service, Australia	ITSA consider that that adopting many of the recommendations in the report will assist us build a more cost effective procurement framework and increase the energy efficiency of our operations.
IP Australia	IP Australia is in general agreement with the ANAO audit report, noting that cost effectiveness and value for money must also be a consideration when implementing initiatives. IP Australia is committed to green office procurement and have requested a 4.5 star ABGR rating to be applied in the construction of the Discovery House building extension which is to commence early in 2006.
Medicare Australia (Formally the Health Insurance Commission)	Medicare Australia is in agreement with the recommendation outlined in this report.
Office of National Assessments	ONA supports the recommendations in the report and has found the context and guidance contained in the report valuable for the implementation of government environmental policies and ISO 14001. At the same time ONA is a small agency that will face significant challenges in translating some of the recommendations into practical process and applications.
Productivity Commission	The Productivity Commission agrees with the Recommendations
Reserve Bank of Australia	Generally the RBA supports the recommendations
Special Broadcasting Service Corporation	SBS has for more than 10 years sought to be environmentally aware in its operations and is supportive of the general direction and recommendations in this report

The Treasury	Treasury endorses all of the recommendations (1 to 16) outlined in the paper but notes the following: <ul style="list-style-type: none"><li data-bbox="598 465 1316 589">• The additional compliance and reporting obligations noted in the report will have resource implications and implementing a number of the recommendation may not be cost effective for some agencies<li data-bbox="598 611 1316 763">• Many of the recommendations will be governed by value for money and whole of life cycle issues, and as such, should be seen as challenges to agencies rather than mandatory targets. Within this context the report will provide useful guidance to agencies
--------------	--

Appendix 2: Surveyed Agencies

Agencies regulated under the Financial Management and Accountability Act 1997

Australian Antarctic Division⁹²
Australian Bureau of Statistics
Australian Crime Commission
Australian Competition and Consumer Commission
Australian Centre for International Agricultural Research
Australian Electoral Commission
Australian Federal Police
The Attorney General's Department
Australian Security Intelligence Organisation
Australian Pesticides and Veterinary Medicines Authority
Australian Taxation Office
Bureau of Meteorology
Director of Public Prosecutions
Centrelink
Commonwealth Superannuation Administration
Child Support Agency
Australian Customs Service
Department of Agriculture, Fisheries and Forestry
Department of Communications, Information Technology and the Arts
Department of Defence
Department of the Environment and Heritage
Department of Education, Science and Training
Department of Employment and Workplace Relations
Department of Foreign Affairs and Trade

⁹² The Australian Antarctic Division was surveyed separately from DEH as its office environment and functions are physically separate to the core areas of the Department of the Environment and Heritage.

Department of Immigration and Multicultural and Indigenous Affairs
Department of Industry, Tourism and Resources
Department of Transport and Regional Services
Department of Veterans' Affairs
Equal Opportunity for Women in the Workplace Agency
Department of Family and Community Services
Department of Finance and Administration
Geoscience Australia
Department of Health and Ageing
IP Australia
Insolvency and Trustee Service, Australia
National Capital Authority
Office of National Assessments
Office of the Privacy Commissioner
Productivity Commission
Department of the Prime Minister and Cabinet
The Treasury

Agencies regulated under the Commonwealth Authorities and Companies Act 1997

Australian Broadcasting Authority
Australian Broadcasting Corporation
Australian Fisheries Management Authority
Australian Institute of Criminology
Australian Institute of Family Studies
Australian Institute of Health and Welfare
Australian Institute of Marine Science
Australian Law Reform Commission
Australian Maritime Safety Authority

Australian National Training Authority
Australian Public Service Commission
Australian Sports Drug Agency
Australian Securities and Investments Commission
Australian Sports Commission
Australian Trade Commission
Australian Wine and Brandy Corporation
Civil Aviation Safety Authority
Commonwealth Scientific and Industrial Research Organisation
Defence Housing Authority
Fisheries Research and Development Corporation
Forest and Wood Products Research and Development Corporation
Great Barrier Reef Marine Park Authority
Grains Research and Development Corporation
Health Insurance Commission⁹³
Land & Water Australia
National Transport Commission
Reserve Bank of Australia
Rural Industries Research and Development Corporation
Special Broadcasting Service Corporation
Sugar Research and Development Corporation

⁹³ Now Medicare Australia and FMA Act agency.

Appendix 3: Available Pool Vehicles for Leaseplan fleet

Make	Model	GVG score	Engine Size	Number of Cylinders
Holden	Barina	15.5	1.4	4
	Astra	14.5	1.8	4
	Caprice	9	3.6	6
	Commodore	9.5	3.6	6
	Calais	9.5	3.6	6
	Statesman	8.5	3.6	6
Toyota	Corolla	13.5	1.8	4
	Camry	11	2.4	4
	Camry V6	10.5	3	6
	Avalon	9.5	3	6
	Echo	13	1.5	4
	Prius	17.5	1.5	4
Ford	Falcon	10	4	6
	Fairmont	9.5	4	6
	Fairlane	9	4	6
	Fiesta	15	1.6	4
	Focus	11.5	2	4
	Territory	8.5	4	6

Make	Model	GVG score	Engine Size	Number of Cylinders
Mitsubishi	Mirage	n/a	1.5	4
	Lancer	11.5	1.8	4
	Magna (including AWD)	10	3.5	6
	Verada (including AWD)	9	3.5	6
Nissan	Pulsar	12	1.8	4

Index

A

Australian Building Greenhouse Rating (ABGR), 33, 111, 123, 144
Australian Bureau of Statistics, 91, 120, 145, 151
Australian Centre for International Agricultural Research, 57, 58, 145, 151
Australian Customs Service, 48, 118, 119, 124, 145, 151
Australian Electoral Commission, 71, 76, 91, 99, 145, 151
Australian Federal Police, 83, 94, 118, 145, 151
Australian Greenhouse Office, 77, 80, 85, 102, 123, 142, 144
Australian Securities and Investments Commission, 59, 61, 146, 153
Australian Taxation Office, 20, 68, 71, 79, 83, 95, 117, 146, 151

B

Better Practice, 63, 88

C

Centrelink, 24, 47, 52, 59, 68, 73, 83, 84, 90, 99, 113, 116, 121, 122, 124, 146, 151
Chief Executive Instructions, 6, 26, 51, 52, 65, 133
Civil Aviation Safety Authority, 47, 122, 153
Commonwealth Procurement Guidelines, 16, 17, 40, 53, 54, 63, 65, 66
Commonwealth Scientific and Industrial Research Organisation, 147, 153
Commonwealth Scientific and Industrial Research Organisation (CSIRO), 54, 86, 90, 92, 123, 125, 147

D

Defence, 20, 21, 22, 23, 24, 25, 29, 30, 32, 45, 47, 48, 63, 65, 76, 77, 78, 79, 80, 83, 88, 90, 93, 95, 101, 102, 105, 106, 107, 108, 109, 111, 113, 114, 115, 119, 120, 122, 124, 125, 136, 137, 138, 139, 140, 141, 142, 151, 153
Defence Energy Efficiency Program, 107, 113, 114
Department of Education, Science and Training, 54, 76, 94, 134, 148, 151
Department of Employment and Workplace Relations, 94, 125, 148, 151
Department of Family and Community Services, 64, 84, 98, 124, 152
Department of Finance and Administration, 15, 16, 17, 25, 26, 28, 29, 39, 40, 42, 48, 51, 52, 53, 54, 58, 62, 69, 70, 71, 74, 75, 77, 81, 83, 84, 99, 103, 134, 143, 144, 152
Department of Health and Ageing, 25, 58, 86, 95, 98, 119, 148, 152
Department of Immigration and Multicultural and Indigenous Affairs, 94
Department of Immigration, Multicultural and Indigenous Affairs, 21, 24, 120, 148
Department of Industry, Tourism and Resources, 61, 70, 89, 124, 144, 148, 152
Department of the Environment and Heritage, 12, 17, 21, 23, 25, 26, 28, 29, 30, 31, 34, 48, 52, 53, 56, 57, 61, 63, 64, 66, 70, 71, 74, 75, 76, 77, 78, 83, 84, 85, 88, 91, 92, 101, 102, 103, 107, 108, 110, 114, 116, 118, 120, 121, 124, 125, 127, 128, 129, 133, 134, 138, 140, 142, 143, 151
Department of the Prime Minister and Cabinet, 52, 76, 95, 149, 152

E

Energy Efficiency, 23, 111, 112, 115
Environment Protection and
Biodiversity Conservation Act 1999,
16, 18, 42, 62
Environmental Management Systems,
17, 18, 24, 27, 46, 47, 51, 55, 56,
57, 59, 60, 63, 80, 84, 118, 127,
133, 134, 135, 136, 137, 139
Environmental Purchasing Guide, 26,
42, 52, 54, 63, 66, 143

G

Green Office Guide, 42, 43
Green Vehicle Guide, 20, 21, 42, 58,
59, 77, 78, 79, 80, 81, 82, 83, 84,
86, 154, 155
Greenhouse Challenge, 33, 85, 116,
124, 125, 126, 134, 135, 142, 148

I

Information Communication
Technology, 9, 20, 28, 66, 71, 73,
74, 75, 99, 134, 143
ISO 14001, 17, 18, 27, 55, 57, 137,
149

N

National Packaging Covenant, 22, 42,
65, 96, 98, 99, 139, 140

R

Recycling, 20, 58, 67, 73, 93, 97
Reserve Bank of Australia, 52, 58, 119,
125, 149, 153

S

Special Broadcasting Service, 113,
149, 153
Sustainability, 15, 16, 39, 42, 44, 45,
48, 63, 65, 87, 88, 90, 98, 111, 121,
125, 127, 134, 137, 139

T

Triple bottom line reporting, 64, 65

W

Whole of Government Energy report,
34, 84, 130, 134, 135, 142

Series Titles

Audit Report No.21 Financial Statement Audit
*Audit of the Financial Statements of Australian Government Entities for the
Period Ended 30 June 2005*

Audit Report No.20 Performance Audit
Regulation of Private Health Insurance by the Private Health Insurance Administration Council
Private Health Insurance Administration Council

Audit Report No.19 Performance Audit
Managing for Quarantine Effectiveness—Follow-up
Department of Agriculture, Fisheries and Forestry
Biosecurity Australia

Audit Report No.18 Performance Audit
Customs Compliance Assurance Strategy for International Cargo
Australian Customs Service

Audit Report No.17 Performance Audit
Administration of the Superannuation Lost Members Register
Australian Taxation Office

Audit Report No.16 Performance Audit
The Management and Processing Leave

Audit Report No.15 Performance Audit
Administration of the R&D Start Program
Department of Industry, Tourism and Resources
Industry Research and Development Board

Audit Report No.14 Performance Audit
Administration of the Commonwealth State Territory Disability Agreement
Department of Family and Community Services

Audit Report No.13 Performance Audit
*Administration of Goods and Services Tax Compliance in the Large
Business Market Segment*
Australian Taxation Office

Audit Report No.12 Performance Audit
*Review of the Evaluation Methods and Continuous Improvement Processes
for Australia's National Counter-Terrorism Coordination Arrangements*
Attorney-General's Department
The Department of the Prime Minister and Cabinet

Audit Report No.11 Business Support Process Audit
*The Senate Order for Departmental and Agency Contracts
(Calendar Year 2004 Compliance)*

Audit Report No.10 Performance Audit
Upgrade of the Orion Maritime Patrol Aircraft Fleet
Department of Defence
Defence Materiel Organisation

Audit Report No.9 Performance Audit
Provision of Export Assistance to Rural and Regional Australia through the TradeStart Program
Australian Trade Commission (Austrade)

Audit Report No.8 Performance Audit
*Management of the Personnel Management Key Solution (PMKeyS)
Implementation Project*
Department of Defence

Audit Report No.7 Performance Audit
Regulation by the Office of the Gene Technology Regulator
Office of the Gene Technology Regulator
Department of Health and Ageing

Audit Report No.6 Performance Audit
Implementation of Job Network Employment Services Contract 3
Department of Employment and Workplace Relations

Audit Report No.5 Performance Audit
*A Financial Management Framework to support Managers in the Department of
Health and Ageing*

Audit Report No.4 Performance Audit
Post Sale Management of Privatised Rail Business Contractual Rights and Obligations

Audit Report No.3 Performance Audit
Management of the M113 Armoured Personnel Carrier Upgrade Project
Department of Defence

Audit Report No.2 Performance Audit
Bank Prudential Supervision Follow-up Audit
Australian Prudential Regulation Authority

Audit Report No.1 Performance Audit
Management of Detention Centre Contracts—Part B
Department of Immigration and Multicultural and Indigenous Affairs

Better Practice Guides

Public Sector Audit Committees	Feb 2005
Fraud Control in Australian Government Agencies	Aug 2004
Security and Control Update for SAP R/3	June 2004
AMODEL Illustrative Financial Statements 2004	May 2004
Better Practice in Annual Performance Reporting	Apr 2004
Management of Scientific Research and Development Projects in Commonwealth Agencies	Dec 2003
Public Sector Governance	July 2003
Goods and Services Tax (GST) Administration	May 2003
Managing Parliamentary Workflow	Apr 2003
Building Capability—A framework for managing learning and development in the APS	Apr 2003
Internal Budgeting	Feb 2003
Administration of Grants	May 2002
Performance Information in Portfolio Budget Statements	May 2002
Life-Cycle Costing	Dec 2001
Some Better Practice Principles for Developing Policy Advice	Nov 2001
Rehabilitation: Managing Return to Work	June 2001
Internet Delivery Decisions	Apr 2001
Planning for the Workforce of the Future	Mar 2001
Contract Management	Feb 2001
Business Continuity Management	Jan 2000
Building a Better Financial Management Framework	Nov 1999
Building Better Financial Management Support	Nov 1999
Managing APS Staff Reductions (in Audit Report No.49 1998–99)	June 1999
Commonwealth Agency Energy Management	June 1999
Cash Management	Mar 1999

Security and Control for SAP R/3	Oct 1998
Selecting Suppliers: Managing the Risk	Oct 1998
New Directions in Internal Audit	July 1998
Controlling Performance and Outcomes	Dec 1997
Management of Accounts Receivable	Dec 1997
Protective Security Principles (in Audit Report No.21 1997–98)	Dec 1997
Public Sector Travel	Dec 1997
Audit Committees	July 1997
Management of Corporate Sponsorship	Apr 1997
Telephone Call Centres Handbook	Dec 1996
Paying Accounts	Nov 1996
Asset Management Handbook	June 1996